Resource Mobilization
in
Sri Lanka's Health Sector

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ACRONYMS

AD	Anno Domini
AIDS	Acquired Immune Deficiency Syndrome
ALOS	Average length of stay
AMP	Assistant Medical Practitioner
BC	Before Christ
CIC	Ceylinco Insurance Co. Ltd.
CTC-E	CTC Eagle Insurance Co. Ltd.
DALY	Disability Adjusted Life Year
DDT	Dichlorodiphenyltrichloroethane
DS	Divisional Secretariat
DTRU	Demography, Demographic Training and Research Unit, University of Colombo
GDP	Gross Domestic Product
GNP	Gross National Product
GOSL	Government of Sri Lanka
GP	General Practitioner
HIV	Human Immunodeficiency Virus
ICSL	Insurance Corporation of Sri Lanka
IMR	Infant mortality rate
IPS	Institute of Policy Studies
LMP	Licensed Medical Practitioner
LSSP	Lanka Sama Samaj Party
LTTE	Liberation Tigers of Tamil Eelam
MOF	Ministry of Finance
MOH	Ministry of Health
NHA	National Health Accounts
NHE	National Health Expenditures
NHSL	National Hospital of Sri Lanka (formerly known as Colombo General Hospital)
NIC	National Insurance Corporation
OLS	Ordinary Least Square
OPD	Outpatient Department
PHC	Primary Health Care
SJGH	Sri Jayewardenepura General Hospital
SLFP	Sri Lanka Freedom Party
SLIC	Sri Lanka Insurance Corporation Ltd.
STD	Sexually Transmitted Disease
TB	Tuberculosis
UAL	Union Assurance Ltd.
UNP	United National Party
WHO	World Health Organization

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EXECUTIVE SUMMARY

Sri Lanka has especial significance for those examining the problems of how to mobilize resources in developing countries in order to achieve USAID Strategic Objectives in health, population, democracy and sustainable development. Despite an income level of only US $650 per capita, Sri Lanka has lowered its infant mortality rate to 17 and child mortality to 19, its total fertility rate to below replacement level at 1.9 (lower than USA), and raised life expectancy to 73 years at birth. It shows that resource-constrained low income countries can lower mortality and fertility rates close to the levels of the developed world, even under conditions of prolonged civil war, providing that the overall system for resource mobilization is fundamentally sound and sustainable. It is the only low-income country where AID has phased out all health and population assistance on the basis of the Strategic Objectives no longer being applicable, and it is the poorest country to ever achieve below-replacement level fertility. Its health resource mobilization strategy has also contributed greatly to improving the welfare of its most disadvantaged citizens, and to the establishment and maintenance of democratic government.

Resources mobilized for the health sector have been modest, averaging 3.0-3.4% of GDP over the past half century. Sri Lanka completed its health transition in just fifty years, but maintained total national health expenditures at less than US $8 per capita per annum - less than in countries comprising 75% of Sub-Saharan Africa's population. Throughout, total public spending on health averaged less than 2% of GDP and US $5 per capita per year, below the US$13 cost of the World Bank's "cost effective" package of basic health services. Despite this, there is clear evidence that modern health services were necessary to achieve improved health status, complementing but not supplementing other public action, such as female education.

Sri Lanka has acheived these results with a resource mobilization strategy that used available public and private funds in an effective, efficient, equitable and sustainable manner, and which maintained overall unit costs at low levels. It used all the key resource mobilization methods, but ultimately the most important and successful ones have been (i) general taxation and (ii) out-of-pocket spending at private providers. In the long run, greater gains were to be had from raising productivity in the public sector than by attempting to raise significant additional resources from public sector user fees or health insurance. These last two were never able to contribute significant resources or do so in an efficient or equitable manner.

General taxation

General revenues were the primary funding mechanism for Sri Lanka's public health services for most of the past 2,300 years. This experience shows that: (i) public financing is sustainable when underlying culture nurtures social expectations about the legitimacy of the state funding health services for individuals, and consensus about societal obligations to help the less fortunate and suffering; and (ii) public financing of health is enabled by economic prosperity upon which successful tax efforts depend. Since the 1920s general revenue spending on health has been income elastic; economic growth has always translated into increased health spending.

Sri Lankan culture may be receptive to the use of public funds for health, but the ballot box is the single most important variable behind its exceptional experience. Universal suffrage introduced in 1931 forced attention by policy makers to the health conditions of the majority. Early results of democratic government were introduction of progressive forms of taxation, such as income tax, and increases in the shares of general revenues and of national income allocated to health. Electoral pressures protected health spending at times of fiscal contraction. Since 1940, public health spending has been maintained at 1.5 - 2.2% of GDP, and has contributed 60% of total health spending in the 1950s declining to 40% currently.

Electoral pressures ensure that general revenue financing is equitable. Taxes are mostly indirect and regressive, but 30% of government health spending goes the poorest 20% compared with less than 10% reaching the richest 20%. The net effect of general revenue financing is redistribution of income to the poor, and this compensates for greater private spending by richer households. Overall utilization of health services is high and equal across income groups. Two mechanisms led to this pattern of equity. First, when establishing health infrastructure in the 1940s-50s, electoral competition forced Sri Lankan policy makers to place greater priority on universal access than on consumer quality of health services. Health facilities were widely dispersed, MOH staff were not permitted to deny admission to any patients seeking care, and resulting occupancy rates of over 200% were officially tolerated. Second, technical quality has been maintained in public health services as consumer quality was kept low. The existence of differentials in consumer quality have encouraged richer Sri Lankans to opt to pay for private services in the private sector, leaving technically adequate, but poor consumer quality, government services for the poor. Self-selection ensures targeting of services without formal means testing. Testing would be inefficient and expensive, since Sri Lankans naturally under-report incomes when asked. Sri Lanka does not means test, but achieves the most equitable distribution of public health spending known in any developing country.

Reliance on general revenue funding at times of government fiscal constraints makes it difficult to meet increased demand. Sri Lanka solved this problem, not by turning to additional mechanisms, but by halving unit costs in the public sector during the 1950s-70s. Annual MOH utilization was raised from 1.5 to 2.5 outpatient visits per capita and from 8 to 16 admissions per 100 capita, while general revenue funding remained constant. Overall unit costs in the MOH are the lowest observed anywhere, and are several times lower than in some developing countries. Consideration of political and institutional factors suggests that this is only possible with a salaried public sector medical workforce, and not if providers were private contractors paid by public financing through insurance or capitation.

Out-of-pocket household spending

Out-of-pocket household spending generated a stable 1.1 - 1.8% of GDP during 1950-90. It is an effective method of raising resources for privately provided primary health care, but not for inpatient care and catastrophic illness. It is voluntary and thus presents no political difficulty unlike user fees. In the 1950s-60s, household spending went mostly to traditional healers, and had little health impact. Free government health services educated Sri Lankans about modern medicine, and led eventually to a switch in demand from traditional healers to modern private providers. Tax funding in effect changed the market for private care by reducing lack of information on the part of consumers. Today out-of-pocket spending contributes 80% of total resources for modern primary health care services. The evidence shows that general practitioners in Sri Lanka's private sector provide care of high quality, providing a significant share of all immunizations, antenatal and post-natal care and treatment of mothers and children.

Public sector user fees

Means-tested fees were used for revenue mobilization by MOH before 1951. Except when they were charged for sales of an addictive substance(opium), they never contributed more than 10% of total recurrent MOH costs, and typically less than 5%. More vigorous fee collection would not have raised collections as most people were too poor to be liable. Applied without income exemptions during 1971-77 by a Marxist Finance Minister, user fees were again unsuccessful. Cost recovery averaged less than 3% of MOH recurrent costs. These benefits were not justified by the impact on utilization, which fell 30% overall, and more amongst poorer Sri Lankans.

In order to protect the poor and raise significant resources, there must be an efficient means testing system. Sri Lanka has much experience with means testing welfare benefits, but methods used are either inefficient or administratively expensive. Until substantial economic development takes place, it is unlikely that the government can develop a cheap, efficient and fair system of measuring incomes. When such methods are developed, raising income taxes would anyway yield more revenues more equitably than user fees charged to sick people.

User fees are politically sensitive. Their introduction in 1971 contributed to the subsequent election defeat of the government. Its successor gained important political support for its program of economic liberalization by abolishing user fees. Opinion poll data indicate that over 75% of Sri Lankans disapprove of a policy of charging user fees at MOH facilities. Opposition is greater for inpatient fees than outpatient fees. Many are willing to voluntarily pay for their own private care or support a market economy, but believe that it is important to have free health care available to all who want. Sri Lankan voters show evidence of social solidarity on this issue, and appear to be closer to West Europeans than Americans in their attitudes. For a Sri Lankan regime intent on market-oriented economic reforms, introducing user fees appear unlikely to bring any economic benefits which would justify the associated electoral costs.

Private insurance and employer schemes

Private insurance and employer provided care cover less than 2% of the Sri Lankan population, and contribute a similar proportion of total national health expenditures. The health insurance market is small, but is competitive with many suppliers. The fundamental constraint to a greater role is the limited size of the formal employment sector in an economy which remains predominantly rural and poor.

Analysis of insurance data indicates that the major beneficiaries of resource mobilization through insurance are the formally employed adults of working age. There is also a strong urban bias, with more than 90% of beneficiaries from, the financial capital, Colombo. Private health insurance does very little to mobilize resources for the elderly, the poor, the chronically sick and the rural population. It appears to be an inefficient mobilization mechanism as well, with almost 40% of total premiums going to pay for administrative costs and insurance company profits. During 1993-5, there was significant insurance-induced price escalation in the out-patient market for insurance beneficiaries. This suggests that much of the additional resources mobilized through insurance contributes to higher profits by providers and not greater utilization of services.

Private health insurance may benefit the health sector, if it shifts patients from MOH facilities to the private sector, thus releasing resources for other patients. However, such gains are likely to be small, since the price of private services in the insurance market is several times greater than the cost of providing the same services in the public sector. More worryingly, the net impact on revenue mobilization may even be negative. The implied tax subsidy per beneficiary for some schemes is already greater than per capita government health expenditures, so the net cost-savings achieved by MOH may be less than the revenue loss experienced by the government.

Lessons for other countries

Low income and fiscal constraints are not barriers to improving health. Low mortality and low fertility and a decent health infrastructure can be achieved in some countries by spending considerably less than the cost of the US$13 minimum package. In the face of increasing demand for health services and tight fiscal constraints, policy makers should not assume that additional resource mobilization is the only solution. Sri Lanka in the same circumstances found that productivity increases in the public sector yielded more than likely alternative resource mobilization mechanisms.

When mobilizing resources for health, general revenues are the most important mechanism available to governments. When functioning well, health systems funded through general taxation can be more equitable and efficient than any alternative, and will redistribute significant income to the poor, even when taxation is regressive. Maintaining government health services at low levels of consumer quality can promote equity in the presence of a private sector by persuading richer individuals to seek private care. Since poor countries never have sufficient resources to pay for all demanded care, it is more equitable to persuade richer individuals to pay for their own treatment. Of the three options for private financing (direct payment of private providers, public sector user fees and private health insurance), Sri Lanka found that out-of-pocket spending in the private sector is the most superior. Unlike user fees, it is voluntary and so is not politically contentious, and protects the poor since there is no need to identify them. Unlike insurance it does not lead to problems of cost-escalation in the private sector, and does not entail any additional costs such as administrative expenses or public regulation of insurance companies.

Out-of-pocket spending works best for primary health care, where consumers are most likely to have experience about different providers and services. Households can pay for most outpatient primary health care, but they remain unable to pay for catastrophic care, such as inpatient treatment. Since private insurance was not a feasible option and private charity was inadequate, Sri Lanka had to use general revenues for inpatient treatment. Over time, as people were educated about modern medicine, Sri Lanka found that primary health care can be adequately financed mostly though out-of-pocket payments, but that hospital inpatient treatment required continuing public funding. Sri Lanka found that using public funds for hospital provision, and private funds for primary health care was ultimately the most sensible solution to funding health care. This maybe contrary to much conventional wisdom, but other countries should appreciate that such alternative arrangements do exist and can work.

INTRODUCTION

General country background

Geography

The Democratic Socialist Republic of Sri Lanka has been known to its inhabitants as Sri Lanka or Lanka for almost 2000 years, but was also called Ceylon from the time of its occupation by the British until 1972. It is a tropical island located south of the Indian subcontinent. The island's land surface of 65,610 square kilometers, which includes 982 square kilometers of inland waters, extends 445 kilometers in a north-south direction, and is 225 kilometers at its greatest width. In the center there is a mountainous region with peaks as high as 2,524 meters, which is surrounded by a coastal plain. A number of rivers arise in the central region, and flow in all directions in a radial pattern towards the sea. For administrative purposes, Sri Lanka is divided into nine provinces, which are further subdivided into 24 districts (Map 1).

The climate is tropical, with little seasonal variation in temperatures, which range from 26°C to 28°C in the coastal areas. Because of its location, the island receives two separate monsoons: a southwestern monsoon from April to June, and a northwestern monsoon from mid-October to mid-February. The first and wettest mostly affects the southwestern part of the island, which is also known as the wet zone, while the latter affects mostly the northeastern and eastern parts, which are known as the dry zone. In the center lies an intermediate climatic zone.

Population

Sri Lanka's 1996 population was 18 million. It is one of the most densely populated in the world. In much of the wet zone, where most Sri Lankans live, population density ranges from 500 to 3,000 persons per square kilometer. Sri Lanka was one of the first developing countries to experience a population explosion, but population growth has fallen to 0.9% in 1996. The country remains predominantly rural; only 22% of the population live in urban areas.

Sri Lanka is home to a culturally plural society. The island has absorbed successive waves of migrants, the majority originating from southern India. The largest ethnic group consists of the Sinhalese, who speak an Indo-Aryan language, Sinhala. Most of the rest speak Tamil, a different language of Dravidian origin. The Tamil-speaking population is divided into two culturally distinct groups: the first, commonly termed 'Sri Lankan Tamils" has existed on the island for almost 2,000 years, while the second, commonly termed "Indian Tamils', are descendants of indentured labor brought to the island during the last century to work on the new plantation estates. The 'Indian Tamils' are today Sri Lankan citizens, and so are also referred to as Estate Tamils; continuing to largely work on plantations, they remain the community least assimilated into Sri Lankan society. The fourth major community consists of Muslims, whose identity is based on religion. Other smaller communities include the Veddhas who are an aboriginal group, Burghers who are descended from Portuguese and Dutch settlers, Malays, Chinese and others. The majority of the Sinhalese are Buddhist, while the majority of Tamils are Hindus. There is also a sizable Christian population, consisting of both Sinhalese and Tamils.

History

Sri Lanka's recorded history stretches back 2,500 years. Buddhism was introduced in the third century BC, and adopted by the majority of the population. Sri Lanka developed a highly centralized polity, in which Buddhism was the state religion with close and interdependent institutional links with the state, in the same manner as in the Theravada Buddhist countries of Siam, Cambodia and Burma. Contemporary state-society relations in Sri Lanka reflect this history. From the first century BC, a highly organized irrigation culture emerged in the north-east of the island, which lasted until the thirteenth century. The following centuries saw internal conflict, and later invasion by European powers. The coastal areas were occupied by the Portuguese during the sixteenth and seventeenth centuries, followed by 200 years of Dutch rule. Throughout, an independent Sri Lankan state was maintained in the central Kandyan region. The Dutch finally ceded control to the British, who extended their rule to the whole island in 1815.

Before the end of the British occupation in 1948, Sri Lanka was the site for a radical innovation in British colonial administration. Self-government on the basis of universal suffrage was introduced in 1931. Local politicians were given sole responsibility over domestic matters, including of health and education. Sri Lanka has maintained unbroken constitutional rule based on regular free elections since 1931.

Political system

Sri Lanka is a Republic headed by an Executive President. The President exercises executive powers and is directly elected for a period of six years by a system of single-transferable vote. There is a single-chamber legislature, which is directly elected for a term of six years by a system of modified proportional representation. An independent judiciary is headed by a Supreme Court, which has the power to review proposed legislation. In 1987, extensive powers were devolved to eight Provincial Councils. These are directly elected and headed by a Chief Minister and provincial cabinet.

Other than its early origins, Sri Lanka's democracy is notable for other reasons. It is one of the few developing countries with a competitive two-party political system, and one which has existed since the 1950s. There have been frequent alternations in government at successive general elections in 1956, 1960 (twice), 1965, 1970, 1977 and 1994. Sri Lankan democracy has shown unique resilience. It has survived the pressures generated by two major Maoist insurgencies (1971 and 1987-1990), two periods of civil war (1983-87 and 1990 to date), and partial foreign occupation (1987-90), which between them have led to the deaths of more than 150,000 Sri Lankans. Sri Lanka's modern health care system is not only the product of this democracy, but it has in itself contributed to the survival of that same democratic system.

Economy

Traditionally, Sri Lankans depended on agricultural cultivation, predominantly of rice. Until the thirteenth century AD, rice cultivation was based on a complex irrigation system established in the north-east. Subsequently the bulk of the population shifted into the southwestern wet zone, where agriculture is rain fed. In this later period, trade played a significant role in the Sri Lankan economy, and income from the export of spices accounted for a major portion of public taxation.

British occupation led to the introduction of coffee, and then tea and rubber cultivation. A classic dualistic export economy emerged by the end of the 19th century. Most people continued to subsist on the basis of rice cultivation, while indentured labor from South India was brought to work the new plantations. At independence in 1948, the economy was highly dependent on trade. Tea, rubber and coconut accounted for more than 95% of total exports.

Except for the short-lived Korean War commodity boom, Sri Lanka has been a typical example of a developing economy facing declining terms of trade. Failure to diversify exports led to a stagnating economy, and worsening import constraints. As many other countries, Sri Lanka responded with policies of import-substitution and increasing government intervention in the economy. These failed to lift living standards. Income levels stagnated from the 1950s to the mid-1970s, by which time Sri Lanka had the most autarkic economy in Asia with the exception of the Communist countries and Burma. A population explosion led to increasing levels of unemployment, and by the early 1970s, Sri Lanka was experiencing the highest levels of visible unemployment in Asia. These economic difficulties led to social tensions, which have been behind repeated bouts of civil violence since 1971.

Following a change of government in 1977, Sri Lanka became one of the earliest developing countries to initiate economic liberalization. Growth performance has substantially improved since the late-1970s, led by rapid growth in export-oriented labor-intensive manufacturing. Manufactured exports, principally garments, now account for more than three-quarters of export earnings, compared with less than 1% in 1975. Industry has been the most dynamic part of the economy in recent years, and now contributes more to GDP than agriculture. Greater market and outward orientation has given the economy sufficient resilience to maintain 5% per annum real growth in the 1990s, despite the substantial costs of a continuing civil war. Annex table A.1 gives recent economic indicators.

The initial partial economic liberalization was accompanied by substantial economic imbalances caused largely by Western-sponsored aid inflows in the post-1977 era, which allowed considerable relaxation of fiscal policy during the 1980s. No other country in recent history was able to raise public sector spending so massively in such a short period of time as Sri Lanka did in the 1980s (Athukorale and Jayasuriya, 1994). This inevitably resulted in a major structural budget deficit, increased debt and balance of payments problems, which Sri Lankan policy makers have had to grapple with in the 1990s. These fiscal constraints have made it more difficult for policy makers to increase public spending on health in recent years, and has increased the search for alternative methods of health sector resource mobilization.

Current health system

The health system in Sri Lanka consists of public and private health care services. Public services are the responsibility of the central Ministry of Health and eight Provincial Councils. Major municipalities also provide services of a limited nature. The public sector delivers both inpatient and outpatient services through an island-wide network of facilities. Private health care services largely consist of ambulatory services provided by full-time private practitioners, government medical staff working privately and pharmacies. There is a small, but growing, private hospital sector. The plantation estates have historically run their own facilities for their employees, but very recently it has been decided to incorporate them into the MOH system.

Historically, the public health care services were managed centrally by the Ministry of Health.[1] Following a constitutional amendment in 1987, responsibility for health services has been devolved to eight Provincial Councils, each of which has its own Provincial Health Ministry. The Provincial Councils are responsible for management of provincial health facilities and programs, while the central ministry is responsible for management of national facilities, medical education, formulation of health policy and bulk purchase of medical requisites.

MOH runs an extensive network of facilities throughout the island. These are organized into a multi-tiered referral system of facilities ranging from maternity homes and dispensaries upwards to teaching hospitals and other national hospitals. These provide mostly modern western type care, but ayurvedic care is also provided by separate government facilities under the responsibility of the Ministry of Indigenous Medicine. In 1995, there were 510 hospitals with 54,641 beds and 386 dispensaries in the public health care system. Outpatient care is mostly provided through outpatient departments attached to the inpatient facilities, although some free-standing outpatient facilities also exist. In 1995, these facilities treated over 3 million inpatients and 36 million outpatients (Central Bank, 1996). This amounted to over 95% of all inpatient admissions, and approximately half of all outpatient consultations in the country (Table 1).

The public health care services employed 4,480 doctors in 1995. In general they work as full-time employees, although most are also permitted private practice during their non-working time. In addition, the Health Ministry employs 1,324 Assistant Medical Practitioners (AMPs), who have received basic medical training during a three-year training program, are permitted to diagnose and prescribe, and often work unsupervised in more peripheral units. The doctors and AMPs are supported by over 13,000 nurses and 5,000 attendants.

Private health care services are largely ambulatory. Approximately 500-1,000 full-time private general practitioners provide outpatient care from private clinics on a fee-for-service basis. This is supplemented by the private practice of government doctors, who work from home, clinics or private hospitals. There are approximately 10,000 traditional practitioners, mostly ayurvedic

[1] In the modern era, a government department with primary responsibility for civilian health services was first established in 1858, with the creation of the Civil Medical Department. This later became the Department of Medical and Sanitary Services, the precursor of the contemporary health ministry. In recent decades, the Health Ministry has undergone various name changes as cabinet portfolios have been regularly rearranged, but it has remained essentially the same institution. It is currently called the 'Ministry of Health, Highways and Social Services'. In this report, it shall therefore be referred to as Ministry of Health (MOH), unless otherwise indicated.

doctors, and under 100 homeopathic practitioners, but they see fewer patients in total than the western qualified doctors. Many private GPs dispense their own medicines, but a large number of private pharmacies also exist and account for a significant share of out-of-pocket spending.

Inpatient care by the private sector was traditionally limited, and restricted to a small number of nursing homes and hospitals in urban areas, which were staffed by both full-time private doctors and government doctors working in their off-hours. However, in recent years there has been an increase in their number and the level of sophistication of their services. In the early 1990s there were approximately 75-100 private hospitals, accounting for approximately 4,000 beds.

Table 1: Sources of treatment used by sick persons in Consumer Finance Surveys

Source of treatment	*1978/79*	*1981/82*	*1986/87*
Western government	42.6%	45.6%	44.1%
Ayurvedic government	1.9%	2.2%	1.9%
Western private	34.3%	34.2%	37.2%
Ayurvedic private	16.1%	12.1%	12.9%
Others	5.1%	6.0%	3.8%

Source: Central Bank Consumer Finance Surveys.

Note: The percentages are for those who reported falling ill during a 14 day reference period, and used any source of treatment, and thus excludes those who did not seek treatment. Treatment includes both inpatient and outpatient care. Inpatient treatment is not disaggregated into public and private in the published reports, but the same surveys indicate that approximately 5% of treatment episodes involved inpatient care, of which it can be assumed approximately 95% was at government hospitals. Western private includes private clinics, private hospitals and pharmacies. There is no published Consumer Finance Survey for any year after 1986/87, but other surveys indicate that the proportion of treatment episodes treated in the private sector has since increased to about 55-60%.

Health conditions

Sri Lanka is a country of both low mortality and fertility rates. Variations in health status between different subgroups of the population are not as great as seen elsewhere. Even poor rural households with little formal education have mortality and fertility levels which are good by the standards of most developing countries. By 1993, despite an income level of only US$600 per capita, Sri Lanka had reduced its infant mortality rate to 17, its child mortality rate to 19, its total fertility rate to below replacement level at 2.1, and raised its life expectancy to 74 and 70 years at birth for women and men respectively (World Bank, 1995).

This health status is not the result of initial low rates, but of rapid and continuous improvements over half a century (Meegama, 1986). During the early part of the twentieth century there was some decline in the average rate, but this fluctuated greatly from year to year. After a rise during the Second World War, the IMR dropped rapidly during 1946 to 1953, falling from 141 to 71 per 1000 live births. This was as much the consequence of improved public medical and public malaria control services, as it was of improved food supplies following the end of war. Afterwards the IMR continued to drop, before beginning to plateau in the mid-1970s. The decline was marked by a reduction within the island of district disparities in mortality (Figure 1). There has been some academic debate about whether Sri Lanka's achievements were merely the consequence of a very rapid initial decline and how good its subsequent performance was (Aturupane, Glewwe, and Isenman, 1994). However, from the late 1970s onwards, the rate of decline in IMR has accelerated. This is itself exceptional, as for much of this period Sri Lanka has experienced conditions which would not normally thought to be conducive to such improvements, namely almost continual internal conflict and a declining numbers of physicians.

Table 2: Long-term trends in social indicators

Indicator	*1930*	*1950*	*1970*	*1990*	*1996*
Birth rate	39	40	29	21	*18*
Death rate	25	13	7	5	*6*
Infant mortality rate [a]	175	82	47	*22*	*17*
Maternal mortality rate [a]	21	6	2	1	*<1*
Life expectancy at birth (years)					
Female	*39*	55	67	*73*	*74*
Male	*41*	56	64	*69*	*70*
Literacy [b]		69	82	88	*90*
Total fertility rate		5.3	4.2	2.2	*1.9*
Total population (millions)	5.3	7.7	12.5	16.9	*17.9*
Population growth rate (%)	1.4	2.8	2.2	*1.0*	*0.9*
GDP per capita (1990 US$)	*150*	*225*	*260*	475	*580*

Source: Official statistics, Annual Administrative Reports, Presidential Task Force on Formulation of a National Health Policy (1992), Department of Census and Statistics (1994), De Silva, (1996), IPS estimates.
Note: (a) per 1000 live births, (b) percentage of population aged 10 years and above. Italicized numbers are IPS estimates, and may differ from other official sources.

1. OVERVIEW OF RESOURCE MOBILIZATION EXPERIENCE

Mobilization methods used in Sri Lanka

There are six potential resource mobilization methods:

1. Public taxation
2. Public sector user fees
3. Foreign donor assistance
4. Out-of-pocket spending on private services
5. Private insurance / employer financing
6. Social insurance

This report will discuss the first five with respect to Sri Lanka. It should be noted that public sector user fees are a form of household spending, but because of the different policy questions raised by user fees in the public sector, these are treated separately in this report from the bulk of household spending, which is used to pay for private services. Of these, methods 1, 2, and 3 have been used generally to fund publicly-provided services, while methods 4 and 5 have been used to fund privately-provided services. Social insurance has never been attempted in Sri Lanka, so will not be discussed in this report.

Resource mobilization strategies considered

The significance of Sri Lanka's experience

Sri Lanka has especial significance for a study examining the problems of how to mobilize and use resources in developing countries in order to achieve USAID Strategic Objectives in health and population. It demonstrates that is possible not only to lower mortality and fertility rates close to the levels of a developed country despite the resource constraints found in low-income developing countries, but that it is possible to do so even under conditions of considerable internal strife, providing that the overall system for resource mobilization is sound and sustainable. So successful has it been in achieving USAID's Strategic Objectives, that it is the only low-income country where USAID has phased out all health and population sector assistance on the basis of the Strategic Objectives no longer being applicable, and it is the poorest country to have ever achieved below-replacement level fertility.

The resources mobilized by Sri Lanka's health sector have always been modest. Sri Lanka completed its demographic transition from a situation of high mortality and fertility rates to a situation of low mortality and low fertility in a period of fifty years, but maintained total national health expenditures at a level of less than US $8 per capita per annum.[1] This is less than currently being spent from all sources in countries comprising about 75% of Sub-Saharan Africa's population (World Bank, 1994). Throughout, total public spending on health averaged less than 2% of GDP and US $5 per capita per year, and was never greater than US$6 per a year. This is considerably below the estimated US$13 per capita that it would cost African countries to provide the World Bank's "cost effective" package of basic preventive and curative health services (World Bank, 1994).

Sri Lanka has done this by adopting a resource mobilization strategy that used available public and private funds in an effective, efficient, equitable and sustainable manner. This strategy has essentially depended only on two resource mobilization methods: (i) general taxation and (ii) out-of-pocket household spending. While the overall policy framework has not changed over half a century, the respective roles of these two mobilization methods has, with household spending increasing its share and contribution to overall health sector efficiency. Sri Lanka has been relatively successful in increasing the contribution of private financing, but this was not achieved overnight, but is itself the result of previous resource mobilization through general taxation.

User fees and private insurance have been used for resource mobilization in Sri Lanka, but the overwhelming experience to date has been that they are inferior to the two major methods of general taxation and direct household spending, and are generally inefficient, inequitable and most importantly ineffective methods of resource mobilization.

Sri Lanka's resource mobilization strategies considered

1930s - 1950s

Policy makers at the start of the 1930s faced a situation which would be familiar to many in the poorest countries today. Average income in constant 1990 US dollars was around $150 per capita and falling, and the health status of the population was poor with the IMR in the range of 150 to 200 per 1000 live births. Modern medical services were largely restricted to public provision in urban areas and employer provided care in the estate sector, while most rural people depended on ineffective traditional forms of treatment provided in the private sector. Most of the population lived at subsistence level. Household savings were minimal, and when severe illness struck, families were impoverished by being unable to work or maintain themselves during sickness. Private charitable actions did support some hospital and clinic services, but these efforts were completely unable to meet the need for services. Means-tested user fees were already being charged in the public sector, and were being mostly paid by urban residents, since rural people were too poor to be eligible. Modern health service provision by the fee-paying private sector was limited.

The possibility of expanding access to modern curative services through private financing was small. Although rural people were paying for traditional services, rural demand for western medicine was much less. Experience with western medicine was so limited, that even if modern private services had expanded, individuals would not have made maximum use of provided services, and they would not have been able to discern for themselves between modern providers of

[1] Measured in constant 1990 US dollars.

different quality. This and rural poverty precluded substantial expansion of modern medical services through public sector user fees or through private financing of private providers.

In the 1930s and 1940s, two critical changes were made to the policy framework. First, modern medical services were expanded throughout the country through public supply, and this was funded by increased taxation of the plantation sector. Second, substantial public funds were allocated to malaria vector control, with the introduction of DDT in the late 1940s. Initially, a contracting economy prevented any significant real increase in public expenditures. When in the late 1930s, fiscal constraints were removed, there was massive expansion of publicly-provided and run health services into rural areas. This expansion continued until the late 1950s, when fiscal constraints again came into play.

In retrospect, this expansion of publicly financed supply addressed three areas of market failure in the health sector, as well as meeting the social and political objective of poverty alleviation through income redistribution:

(i) **Provision of a pure public good -** the control of mosquitoes to reduce malaria, and one which disproportionately benefited poor, who lived in the dry zone districts, as well as contributing to economic growth by enabling the expansion of irrigation agriculture.
(ii) **Insurance market failure -** the provision of public inpatient care provided the population with insurance against some of the effects of severe illness, a need which was not being met by the existing insurance market.
(iii) **Imperfect information amongst consumers -** it inadvertently dealt with the lack of information about the benefits of western medicine, by exposing the rural population to it through free public supply. Given that household preferences favored traditional medicine, the low price of the public services in terms of access costs (dispersed infrastructure) and money prices (zero user fees and free hospital meals) were critically important in encouraging individuals to try the new treatments. Exposure through repeated visits began to provide households with the information which would allow them to select the most effective forms of care when ill. The more households used government medical services, the more willing they became to use them again when ill, as illustrated by the increased use of government medical services following the 1934-35 malaria epidemic, and the continuous increase in per capita utilization after the 1930s.[1]

In expanding public services, Sri Lankan policy makers avoided a major failure of public supply in other countries. The expansion in public services disproportionately benefited the rural poor, as expansion was achieved in a highly dispersed manner throughout the island. While taxation was regressive, the net fiscal impact was progressive, as the value of implicit subsidies to the poor through the health system, not only was greater than their tax burden, but was also greater as a share of their income than for the rich.

1 In effect, the initial supply of free public services, switched consumer preferences from traditional treatment to government provided western treatment. Most economists are aware of the problem of imperfect information in the health sector, and would therefore support public education programs (Hammer, 1996). However, they typically under-appreciate what is known to any experienced marketing expert: that allowing consumers to try out for free a new product, which is substantially different to its competitors, can be far more effective than any amount of advertising about its differences.

1950s - 1970s

Expansion of publicly-financed medical services in the 1930s and 1940s provided the whole population with ready access to modern medical services. Table 1.1 presents an estimated national health accounting matrix for 1953.

Table 1.1: National health accounts matrix (millions of rupees), 1953

	Sources of funds				
	GOSL	*Employers*	*Insurance*	*Households*	*Subtotal*
Public Providers					
MOH hospital	72			1	73
MOH non-hospital	25				25
Other government	3				3
Subtotal	*100*	*0*	*0*	*1*	*101*
Estate Facilities	0	4	0	0	4
Private Providers					
Private hospitals		1		1	2
Private clinics		2		4	6
Pharmacies				4	4
Traditional				42	42
Subtotal	*0*	*3*	*0*	*51*	*54*
TOTAL (Rs. million)	100	7	0	52	159
TOTAL (% GDP)	2.1 %	0.1 %	0 %	1.1 %	3.3 %

Sources: Central Bank Consumer Finance Survey 1953, GOSL Annual Administrative Reports, Abel-Smith (1967), IPS Database, authors' estimates.
Note: This NHA matrix and the two given below are tentative composites based on many different sources of data from varying years. The figures given in each cell are not meant to be accurate, but to indicate approximate proportions of each amount. 'Traditional' refers to ayurvedic, other traditional and ceremonial uses of health expenditures.

Households themselves directly contributed over 1% of GDP to the health sector. However, over 80% of their expenditures went to traditional providers, indicating the degree of market failure due to imperfect consumer information that would have characterized a wholly privately financed health sector at this time. Because of the nature of consumer preferences at the time, reliance on private financing would not have led to provision of adequate medical care. Only 30% of total non-hospital expenditures were financed from general revenues, but this comprised 70% of all financing going to modern forms of treatment (Table 1.2. The degree of public subsidy for the hospital sector was much greater (almost 100%), but this was the area where insurance failure was also significant. General taxation was vital to ensure the delivery of adequate quantities of modern treatment, and to ensure that the poor were not made destitute through the effects of catastrophic illness. Neither public sector user fees, nor household spending on private provision nor private insurance could have substituted for public financing of these two areas.

Table 1.2: Trends in the composition and use of health expenditures

	1953	*1980*	*1990*
Source of national health expenditures (%)			
Public	62	57	46
Private	38	43	54
Use of national health expenditures (%)			
Hospital	48	45	40
Non-hospital	52	55	60
Source of all hospital expenditures (%)			
Public	96	87	93
Private	4	13	7
Source of all non-hospital expenditures (%)			
Public	30	31	16
Private	70	69	84
Source of modern non-hospital expenditures (%)			
Public	70	40	19
Private	30	60	81

Source: Derived from Tables 1.3 -1.4
Note: "Modern' is defined as all non-scientifically-based forms of care, and thus excludes ayurvedic, ceremonial, homeopathic, and other treatments. 'Hospital' and 'non-hospital' refers to the location of care, and so outpatient care provided by government hospitals is classified here as hospital care.

Public supply had two effects on the market for modern medical services: (i) it increased household demand for such services as households acquired information about western medicine through exposure at government health facilities, and (ii) it reduced the supply constraints to increased private provision, by placing government doctors throughout the country and allowing them to do private practice, and by increasing the overall numbers of medical personnel in the country. During the 1950s and 1960s, as household demand for modern medical services increased, expenditures on western sources of care rose, while expenditures on traditional forms declined or remained unchanged. Household preferences having shifted once from traditional treatments to public western services in the 1930s to 1950s, began to shift again from public modern services to private western services.

Although demand for modern medical services rose dramatically, it was not accompanied by an increase in the ability of households to pay for inpatient care. While households valued such care and presumably were willing to pay actuarially fair rates to protect themselves from the cost, the insurance market continued to fail to provide catastrophic health insurance. While market failures (i.e.: information, supply constraints) in the ambulatory sector became less significant, the major market failure (lack of insurance) in the inpatient sector continued. So while by 1980, almost two thirds of financing for modern non-hospital care was from private sources, nine-tenths of hospital care was still being financed from general revenues (Tables 1.1 and 1.2). General tax revenues were increasingly concentrated on paying for inpatient care.

It is readily apparent that this policy approach of heavy hospital spending did not have as a paramount objective the maximization of cost-effectiveness in the use of scarce public funds. It is also clear that from the 1950s onwards, technical and professional opinion in the health ministry and amongst international experts believed that such emphasis on hospital spending was misplaced, and this led to repeated policy statements that spending would be reallocated towards non-hospital services. This never happened. The reason was political. Ever since the initial expansion of government services in the 1930s and 1940s, policy makers had in fact been responding primarily to the social demand for more publicly-financed hospital care, which had been identified in official reports, was apparent in the increasing overcrowding of government hospital facilities, and was communicated through the electoral mechanism as individual legislators attempted to win votes by meeting public demand for government services.[1] The state was responding to aggregate social preferences as expressed through the ballot box, when it emphasized hospital care, and not to some technical view of what was optimal or rational.

The continued rise in utilization of publicly-funded services was not met by commensurate increases in the availability of general revenues. Instead, public services delivered an increasing volume of services by halving unit costs during the 1950s to 1970s through using personnel and infrastructure even more intensively (Table 1.2). This has relevance to the one policy option that was not considered at this time, namely the public financing of private providers. If such an option had been tried, there are essentially only two reimbursement mechanisms which could have been used: (i) fee-for-service payment, in which payment is linked to the volume of services provided, and (ii) capitation-based payments, in which private providers were paid a fixed sum for treating all patients in a population group on the basis of a fixed budget. In either case, there is an implicit price for a certain volume of services. However, if GOSL was fiscally constrained, as it was, it would have had to persuade its contracted private providers to provide ever more services at lower and lower negotiated prices. Given the pluralistic nature of the Sri Lankan polity it is a moot question how successful GOSL would have been in bargaining such a reduction in unit prices with an organized medical profession, which would have had considerable exit options in the form of private practice and emigration. If GOSL had had to negotiate, then the level of implied unit costs would have been transparent, inviting comparison with other countries.[2] One recent World Bank study (Griffin, Levine, and Kelly Eakin, 1994), which mistakenly overestimated hospital unit costs by a factor of three, still concluded that "the apparent low cost of State . . . hospital stays . . . could be due to many different -- not necessarily desirable -- reasons: extremely high efficiency beyond almost anything humanly imaginable . . . and extreme overcrowding that economizes on hotel costs through tremendous sacrifices by the patients." Given that even international experts find the level of costs in Sri Lankan hospitals "unimaginable", it is not readily apparent how the government would have persuaded publicly-financed private providers to achieve the even lower unit costs that were achieved in practice.

Yet this forced reduction in unit costs was vital to avoiding the pro-rich distribution of general revenue-funded health services in other countries, which typically stems from an emphasis on urban facilities and from hospital admission procedures which are easier for wealthier patients to exploit. In Sri Lanka, maintenance of quality of available services was traded for universal access and dispersion. Again, as with the emphasis on hospital spending, this was the consequence of the political mechanism. This is illustrated by three examples.

1 This process closely resembles events in the UK in the 1940s, where public opinion and rising demand for hospital services were also critical in persuading officials to accept radical health services reforms (Jacobs, 1993), and in Hong Kong in the 1960s, where the official decision to expand hospital care was due to similar reasons (Chu, 1994).

2 The UK NHS reforms in the 1990s, which created a provider-purchaser split, made the historical variation in unit costs between different providers transparent for the first time, and has led to open debate amongst providers and policy makers about the fairness of such differences.

Geographical dispersion of facilities

Successive official reports (Cumpston, 1950) (Simeonov, 1975) (Presidential Task Force on Formulation of a National Health Policy for Shri Lanka, 1993) and interviews with health ministry officials of the time (Wanasinghe, 1996) indicate that the planning process within the ministry was ineffectual. Although planners had some concept of rational expansion, new facilities were opened and located without any formal planning process being followed. New facilities were sited and built because of the lobbying of ministers by individual legislators. Since politicians were parochial and were only concerned with their individual electoral constituencies, this resulted in an health infrastructure which was geographically dispersed and reached every corner of the island. The incentive for each legislator was to provide facilities in their area, even if it was suboptimal in terms of quality and irrational from the perspective of a national referral system.

Overcrowding

In the 1950s, the health ministry was well aware of the problems in maintaining quality of services given the levels of overcrowding that existed. However, while official instructions were issued to restrict hospital admissions to a maximum of 200% of available beds[1], this was ignored in the face of political pressure to admit everyone. As the Staffing Commission noted in 1948:

> "The Ministerial policy has been that no one seeking admission to a hospital should be refused unless it is a clear case of malingering.
>
> The net result is that hardly any medical officer in Government service would take the responsibility of turning away a person seeking to be an inpatient however satisfied he may be that he does not need hospital treatment.
>
> If the admitting officer accepts patients who have no right to treatment as inpatients, he stands little or no risk of reprimand; if he turns away a patient who has influential sponsors, or by an error in diagnosis, which is always possible, he is certain to get into hot water and his career may be ruined."[2]

The political process acted to create provider incentives, which promoted increased hospital admission rates despite fixed hospital budgets. It is difficult to imagine that publicly-financed or privately-financed private providers could have been subject to such incentives.

Apothecaries

Sri Lanka staffs its public health system with two sorts of medical personnel: (i) fully-qualified doctors with five years training in western medicine, and (ii) apothecaries or AMPs with three years training in western medicine. In terms of training the apothecaries were the equivalent of bare-foot doctors in China, and they represented the solution to the same problem of how to expand access given limited human resources. However, unlike in the case of India, where the comparable LMPs were abolished as a result of pressure from fully-qualified doctors (Muraleedharan, 1992), Sri Lanka has traded the technical quality of personnel for wider public access to modern health services. In Sri Lanka, electoral pressure for expanded access would have counteracted any political pressure from the medical profession to abolish or downgrade AMPs.

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1 The reader should note that this is not a misprint.

2 Sessional Paper No. V of 1948, Paragraph 745 cited in Cumpston (1950).

Given rising expectations amongst consumers, this led to an increasing gap between expected and actual quality levels. Since demand for quality and ability to pay is greater at higher incomes, this has meant that it is richer Sri Lankans who generally opt to seek care in the private sector. This in turn has increased the redistributive impact of public spending, as subsidies become more targeted to the poor.

Policy makers could have dealt with the problem of fiscal constraints and demand for better quality by using public sector user fees to pay for quality improvements. In a sense this was what they tried to do between 1970 and 1977, but user fees encountered major difficulties. The cost of the 2-4% cost recovery achieved was a 30% drop in reduction in utilization, which cannot be justified if the objective is to meet the demand for increased services. To reduce the negative impact on the poor, it became necessary to exempt people according to income, which in turn reduced the net contribution to resource mobilization. Sri Lanka already extensively means tests people for access to food subsidies and other welfare programs, but experience has proven this both inaccurate and expensive. Major problems identified include leakage due to difficulty in identifying incomes, and exclusion of many eligible people because of failure to understand the system of entitlements (World Bank, 1995). As it is, the actual solution of shifting consumers to the private sector by creating quality differentials, has raised cost-recovery in the provision of modern ambulatory services from 30% in 1953 to over 80% in the 1990s (Table 1.4), while simultaneously increasing the share of public subsidies reaching the poor and ensuring that the all the deserving poor have access to and do use free public services.

Table 1.3: National health accounts matrix (millions of rupees), 1980

	Sources of funds				
	GOSL	*Employers*	*Insurance*	*Households*	*Subtotal*
Public Providers					
MOH hospital	796			6	802
MOH non-hospital	265				265
Other government	82				82
Subtotal	*1143*	*0*	*0*	*6*	*1,149*
Estate Facilities	7	27	0	0	34
Private Providers					
Private hospitals		10	1	90	101
Private clinics		6	1	170	177
Pharmacies				330	330
Traditional				240	240
Subtotal	*0*	*16*	*2*	*830*	*848*
TOTAL (Rs. million)	1150	43	2	836	2,031
TOTAL (% GDP)	1.7 %	0.1 %	0 %	1.3 %	3.1 %

Sources: Abel-Smith (1980), IPS Health Database, authors' estimates

Table 1.4: National health accounts matrix (millions of rupees), 1990

	Sources of funds				
	GOSL	*Employers*	*Insurance*	*Households*	*Subtotal*
Public Providers					
MOH hospital	3,951		1	?	3,952
MOH non-hospital	1,013				1,013
Other government	100				
Subtotal	*5,064*	*0*	*1*	*0*	*5,065*
Employers	?	?	0	0	?
Private Providers					
Private hospitals	0	55	30	320	300
Private clinics	0	20	1	2,200	2,221
Pharmacies	0	5	0	2,100	2,105
Traditional	0	0	0	980	980
Subtotal	*0*	*80*	*32*	*5,600*	*5,712*
TOTAL (Rs. million)	5,064	80	33	5,600	10,777
TOTAL (% GDP)	1.6%	0%	0%	1.7%	3.3 %

Sources: Central Bank Consumer Finance Surveys, Ministry of Health Annual Health Bulletins, Abel-Smith (1980), Premaratne (1992), IPS Health Database, authors' estimates.

1980s - 1990s

The 1980s have seen a continuing shift of ambulatory care provision to the private sector, and financing to direct household spending (Tables 1.3 and 1.4). Health expenditures are now predominantly private. The extent of market failure is not as significant as might have been expected in the 1930s. Consumers are better informed; they are better able to recognize illness and better able to choose amongst the various options for primary care. In the 1990s, more than 80% of household expenditures are for western medicine, and not traditional treatment, and the majority of primary health care contacts are in the private sector. However, market failure continues to exist in the provision of insurance for catastrophic illness. Private health insurance has limited ability to extend population coverage beyond 2%, and it is characterized by all the insurance market failures seen in other countries with unregulated private health insurance. So while outpatient utilization of MOH facilities declines, inpatient use has shown a slight increase. In this situation, the actual allocation patterns of the health ministry, which reveal increasing allocation of taxation revenues to inpatient services may be sensible, given a decline in the potential for market failure in primary care relative to the problem of market failure to provide insurance.

The current policy framework, which uses (i) general revenues to finance public goods (e.g., malaria control, AIDS/HIV control, etc.,), inpatient care for 95% of people and outpatient care for the poorer half of the population, and (ii) household spending for the rest, seems to be reasonably effective at maximizing social welfare and health status given limited public resources. Households have the information and resources to ensure that 20 to 60% of such cost-effective interventions as immunization and ORT are delivered privately, but they continue to be unable to afford hospitalization.

Private health insurance has developed, but it lacks the potential to expand beyond the small formal sector. It remains unable to directly address the major policy objectives of Sri Lankan health policy in the past, i.e., income redistribution and poverty alleviation, and insurance against catastrophic illness. Neither the poor or those most likely to be sick -- the chronically ill and old -- are covered by private health insurance. Actuarially fair premiums for these high-risk groups to access private insurance would be so great that they would be unable to purchase. In this situation, the provision of risk-protection through the public hospital system may be worth more to these groups than those who do have affordable access to private insurance. Although utilization of inpatient care does not show the same income gradient as for outpatient care, it may thus be more pro-poor in its net welfare benefits than the pure fiscal incidence suggests. In addition, the cost-escalating impact of private insurance is already apparent, and this can only have negative implications on the ability of the public sector to keep costs low.

User fees remain a policy option in Sri Lanka, but they are not acceptable to the electorate. There might be heavy political costs for policy makers in pursuing this option. These political costs and the economic costs of designing effective means testing systems to protect the poor continue to make this option undesirable and unlikely to raise significant net resources.

2. REVIEW OF EXPERIENCES WITH SPECIFIC RESOURCE MOBILIZATION METHODS

Public taxation

This section of the report takes what some readers might consider a lengthy historical perspective, but one which is necessary in order to understand the importance and unusual characteristics of general revenues as a resource mobilization mechanism in Sri Lanka. Some readers may wish to skip the next five to seven pages.[1]

Pre- modern origins of public resource mobilization (500 BC - AD 1300)

The use of public taxation or general revenues as a major resource mobilization mechanism for the health sector in Sri Lanka is neither a modern nor a post-independence phenomenon. The historical record shows that general revenues have been used in Sri Lanka to finance health services for at least 2,300 years. The majority of hospitals in Sri Lanka in the pre-modern era were founded and maintained by the kings, and not through private charitable or for-profit activity. Throughout the Mahavamsa, it is clear that the prospect of merit, as ordained by Buddhism, which would accrue to the builder, was the major driving force motivating royal action. In the Buddhist value system great value is placed on the alleviation of suffering, and in the Theravada Buddhist societies of Sri Lanka and Southeast Asia, the state was an integral element of civil society. Thus it was quite natural that the state should be regarded as having a responsibility in this field. Modern social attitudes in Sri Lanka, which regard the state as having the primary responsibility for providing hospital care, thus strongly echo earlier traditions.

The origins of state health services in Sri Lanka

The concepts of hospitals, where a number of patients could be collectively housed in special centers with the attendant advantages for the sick, and of public financing of hospital care developed first in Sri Lanka and in its Buddhist neighbors.[2] There is no evidence that hospitals existed earlier in the older civilizations of China and the Middle East.[3] The idea of creating hospitals grew "gradually and spread over many distant countries, from Burma, Siam and Ceylon

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[1] Some non-Sri Lankan reviewers of earlier drafts of this report have understandably expressed the view that a long historical overview is unnecessary from the perspective of answering the questions addressed in the study. The authors have nonetheless decided to include this section on the grounds that it is not possible to understand contemporary Sri Lankan health financing policy without such a historical context. As noted by (Bechert, 1972) the Buddhist societies of South and South East Asia are pre-eminently "historically conscious" societies, and none more so than Sri Lanka. There are very few contemporary societies where matters of national policy are regularly discussed in public with reference to previous state actions that occurred anywhere from fifty to 2,300 years previously. As with studies of Sri Lankan development strategy (Bruton, 1992), agricultural pricing policy (Moore, 1985) or ethnic policy (de Silva, 1986), it is not possible to understand health sector resource mobilization in Sri Lanka without reference to 'ancient' history'.

[2] Hospitals probably originated in India under the rule of the Buddhist Emperor Asoka.

[3] Much of this historical section is based on the excellent review provided by Uragoda (1987).

to Syria, Persia and Egypt and the whole of western Europe . . . In Ceylon and Burma they seem to have been ubiquitous" (Parker, 1928).

The earliest hospitals in Sri Lanka date from the reign of King Pandukabaya in the fourth century BC (Mahanama, 1989).[1] The king, in effect the State, shouldered the responsibility of building and maintaining them. Hospitals were built throughout the country not only for priests and nobility, but also for the public. King Dutugemunu (second century BC) maintained hospitals at eighteen different places for the sick (Simeonov, 1975). Both general and specialized facilities, such as institutions for cripples, the blind and for infectious diseases, and convalescent homes were constructed. The first public maternity home was probably established by Upatissa II (AD 522-524). The Mahavamsa mentions no instance of commoners establishing hospitals, and there is only one inscription, which mentions a hospital established by a commoner.

In contrast with hospitals, the Mahavamsa only mentions ambulatory care facilities once. Kassapa IV (AD 896-913) is recorded as building 'houses where medicine was to be had in different parts of the town.' It is not clear whether these were pharmacies or outpatient treatment centers. As Uragoda (1987) notes the paucity of references to outdoor treatment reflects the tradition of ayurvedic general practice, where ayurvedic physicians visit the sick at home for payment rather than the sick attending them.

Financing of state health services

For most of the pre-modern period, the Sri Lanka was a highly centralized polity based on the state's organization of the irrigation system. The state had two major methods of revenue extraction: (i) agricultural production from state-owned lands, and (ii) the system known as *rajakariya*, under which people were given the right to farm state lands in exchange for the provision of labor for state activities. Both mechanisms were probably used to support hospitals. Special lands and villages were often also donated to hospitals as a source of additional rental income. There is evidence that the state also provided food for hospital patients.[2]

Physicians were a highly respected profession from the earliest times. Ayurvedic knowledge was handed down privately within families, but the kings made efforts to maximize the availability of their services. Both the Mahavamsa and Culavamsa record various kings providing lands as a source of income for physicians, who in turn were expected to practice 'day and night'. The extent of remuneration was substantial, with senior physicians often receiving greater remuneration than the priesthood. Similar arrangements were also made for the support of other hospital staff, including administrators and managers.[3]

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1 Sri Lanka has the longest continuously written history of any state outside China. The Mahavamsa and Culavamsa are two chronicles recording events in Sri Lanka from the fifth century BC until the British occupation in 1815. Written by priests, they tend to focus on events of religious and royal significance.

2 An inscription of Kasyapa V states that "dead goats and fowls should be assigned to the hospital ...". Another inscription states " When those who have caught fish at a place, where creatures living in the water are protected, have been arrested the [hospital] superintendent shall . . . with their lordships the physicians and make the culprits do work on the tanks. The fish shall be confiscated for the hospital".

3 One ninth century inscription at Mihintale by Mahinda IV promulgates the levels of remuneration for various categories of hospital workers, including "supply strainers', physicians, 'physicians who apply leeches' and dispensers of medicine; payment was in the form of money, food or lands.

While hospitals were primarily a state responsibility, it remains unclear whether treatment was completely free. One inscription prohibits hospital employees from accepting presents from the tenants of hospital lands, but gives no specific prohibition of taking presents from patients. It is thus plausible that patients were expected to give presents or fees to hospital staff in return for their services (Uragoda, 1987), in keeping with the custom of Ayurvedic general practitioners.

As already noted, there is a record of only one hospital established by private individuals. This hospital, which was located at Polonnaruwa, was supported through private resources. Certain immunities were apparently granted to land owned by an individual on condition that he paid rental to this hospital, in the form of dried ginger or gold. This is an early example of state action to support the maintenance of a privately established institution by diversion of private resources through the giving of incentives or tax exemptions.

The breakdown of Sri Lanka's state financed health system

This state-dominated system survived until the thirteenth century, when the irrigation-based culture collapsed, and was followed by periods of internal conflict and foreign occupation. This collapse meant the end of the large scale public revenue extraction which had supported public social services. Subsequent societal demands caused by European invasion from the fifteenth century onwards then prevented re-establishment of the earlier system of organized state action. Significant state intervention in health only recommenced in the early twentieth century with the establishment of the plantation economy and the granting of self-rule to Sri Lanka by the British. A period of five centuries separates the modern health system from its predecessor, but underlying social values, particularly about the responsibility of the state to the sick and public willingness to support state action, reflect this history, and have played a major role in determining the health financing choices that Sri Lanka has made in the twentieth century.

The Pre-Donoughmore Period (1865-1930)

During the early years of British occupation, the State was mostly concerned with the welfare of the European residents and immigrant workers (see below). Welfare policy developed to improve the conditions of immigrant labor only. By the early twentieth century, on the best estates, immigrant workers and their families received free medical treatment and hospital care, as well as free schooling and free school meals for their children. These benefits for one section of formal sector workers did not arise through trade union pressure. However, when an indigenous trade union movement emerged in the 1920s, the example of the estates provided an impetus to union agitation for the extension of similar benefits to the rest of the population (De Silva, 1973). This emergent trade union movement, based in the industrial labor force of Colombo, was distinct from the organized labor on the estates. It was given political leadership by the Ceylon Labour Union and Ceylon Labour Party, led by AE Goonesinha. Goonesinha and his associates tended to be rather resentful of the position enjoyed by immigrant labor.

Around the same time, the new middle classes which had developed with the growth of the plantation economy had begun a gradual agitation for greater political representation and power. Nevertheless, most of this rising elite was rather conservative in its advocacy of political and social change. In contrast the Ceylon Labour Union was more radical, campaigning vigorously for complete self-rule, full trade union rights and universal suffrage, but with little effect, lacking as it did a mass base outside Colombo. The Colombo-based trade union movements remained nonetheless committed to constitutional methods, and maintained continuing links to the British Labour Party. They were essentially social democratic in their outlook (Alailima, 1991). The British colonial administrators, more concerned about the financial implications of more extensive social services, were able to successfully resist more ambitious programs.

This constellation of political forces was crucial for a subsequent event of profound significance for Sri Lanka and its health sector. In 1927, the British sent a Commission headed by Lord Donoughmore to investigate the need for extending responsible government to Sri Lanka. While the Sri Lankan elite pressed for further partial political democratization, it was only the small Ceylon Labour Union which made a strong case for universal suffrage before the Commission. Its delegations pointed to the lack of social legislation for the bulk of the population, and argued strongly that this was due to the restricted franchise with most legislators representing estate owners or the commercial elite. At a time when Britain was itself ruled by a government elected on a restricted franchise, they made the argument that universal suffrage was not an end in itself, but merely the means to ensure better social standards. It was only with the existence of the widest franchise that government would be forced to pay attention to social needs of the mass of the population, and raise and allocate public funds accordingly.

The need to improve infant mortality and general health became one of the principal motivations behind the subsequent recommendation of the Donoughmore Commission to grant parliamentary government on the basis of universal franchise to the people of Sri Lanka.[1] It was clear to them that what mattered in a poor country such as Sri Lanka was giving a voice through the ballot box to the majority of the island's population.

> 'We have given serious consideration to the question of women's franchise. Apart from the familiar arguments in its favour, and the general principle of sex equality, we have been impressed by the high infantile mortality in the Island, and the need for better housing, and for the development of child welfare, midwifery and ante-natal services. all providing problems in the solution of which women's interest and help would be of special value, It is true that though the position of women in the East has not, till recent years, been suitable for the exercise of political power, that position is rapidly changing and the demand for the vote was put to us by a large and representative deputation of Ceylonese ladies.'[2]

The recommendations of the Commission were by the standards of the day extremely radical,[3] going far beyond what was desired by the Sri Lankan elite. It "took the risk of granting to the mass of the people, not by stages, but at one step, a right which they did not demand". The franchise was expanded from four to 100 per cent of the population, and Sri Lanka was granted a self-rule under the British Crown. Elected Sri Lankan legislators were made responsible for all internal matters, including social policy. Power was to be exercised by a State Council to be

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1 Their actual recommendation was for a higher age qualification for women, but this was dropped by the British Colonial Office in London before elections were held.

2 Ceylon: Report of the Special Commission on the Constitution. Colombo: H.Ross Cottle, Government Printer, Ceylon, 1928, page 88.

3 Universal suffrage was achieved in theory in the USA in 1920, although subsequent state laws effectively deprived many Americans in southern states of the vote until the 1960s. The Commission made its report in 1928, which was one year before British women themselves first participated in a general election based on full and equal suffrage.

elected on the basis of full and equal universal suffrage. The first State Council was elected in 1931, and a subsequent election was held in 1936.

The Donoughmore Period (1931-46)

Increased mobilization of general revenues

The major constraint facing the increased use of general revenues in most developing countries as a resource mobilization mechanism for health services is the limited potential for such revenue expansion for both economic and political reasons. In Sri Lanka, the revenue system had developed largely to serve the interests of the colonial rulers. Social expenditures, and thus demands on the revenue system were low. The bulk of general revenues consisted of indirect taxes levied on foreign trade. Direct taxes on income were non-existent, and there was no pressure to introduce such taxes as they would have borne directly on the upper income groups, and since there was little need on the expenditure side to increase taxation (Snodgrass, 1966). For similar reasons it would have been difficult politically to increase import taxes, as many of them fell on consumption items, while export duties bore directly on the plantation interests, who were the other group well represented in the Legislative Council.

The granting of Universal Suffrage in 1931 had a critical effect on resource mobilization for health services: (i) it counteracted the interests of the upper-income groups and plantation interests in a low level of public taxation, and (ii) it created a mechanism by which the needs for health services experienced by the majority of the population could be translated into political pressure on the elite. By changing the balance of political power, it encouraged the legislature to introduce direct taxes in Sri Lanka for the first time. These were levied on both individual and corporate incomes from 1932 (Meegama, 1986). Although these never became the dominant source of government revenue, they remain the most progressive forms of taxation available to the Sri Lankan government, and also the least distortionary in terms of disincentives for production. Figure 2.1. shows the development of central government tax revenues during the Donoughmore period (data from Snodgrass, 1966). Unfortunately, the impact of the franchise on revenue mobilization was muted in the early years, as Sri Lanka's trade dependent economy experienced a major depression during 1930-33, as a result of the global recession triggered by protectionist trade legislation in the US Congress.[1]

Increased political acceptance of the role of government financing

More important than the impact on government was the increased acceptance of the role of government in providing health services that emerged. The existence of an electoral mechanism forced politicians in the elite to become more aware of the needs of the populace. Politicians also realized the symbolic advantages to be gained by championing the interests of the people against the bureaucrats in the administrators, who were their competitors for power (De Silva, 1973). As

[1] US trade protectionism in the 1920s continued to be one of the key fundamental causes of persisting high levels of poverty and reduced economic growth in Sri Lanka for more than a half a century. As noted by Bruton et al. (1992), Sri Lanka's unhappy experience with global trade during the 1930s and 40s was critical in persuading the country's otherwise conservative elite that foreign trade could not be an engine of growth, and thus led to the inward, statist economic policies of the 1960s and 70s.

the party system developed, competition between candidates at election time increased, and in turn led politicians to learn the benefits of channeling state services and public spending to their electorates (Moore, 1985; Jayanntha, 1992). This led to a positively reinforcing cycle. Expansion in state welfare activities increased the significance of politics, and in turn led ordinary people to become more involved in the political process, and increase participation in the electoral process. During 1947 and 1952, electoral turnout increased from 56% to 71% (Moore, 1985). Tax-funded health services thus were not only the result of a democratic process, but also contributed to the strengthening of the infant Sri Lankan democracy.[1]

The effects of party competition were enhanced by the emergence during the 1930s of a Marxist opposition led by the Trotskyite LSSP. During 1934-35, the island was struck by the Great Malaria Epidemic, which was compounded by famine. During its peak in 1935, more than 5 million cases were recorded at government dispensaries, at a time when the population was only 5.6 million. Over 50,000 people died, equivalent to 1% of the total population, and the infant mortality rate in several districts approached 500 per 1000. At the time modern technology had little to offer in terms of malaria control or treatment, but the LSSP and Communist Party responded by organizing relief efforts for the victims and the hardest hit districts. This was seen as a political threat, which led establishment politicians to support increased provision of relief programs and medical services to the rural population as a means of countering support for the Marxists (Sanderatne, N.). It was also clear to many observers that private initiative was totally inadequate and incapable of meeting the demand for services created by the epidemic.[2] Recognition of the failure of private financing and provision to meet the social demand for medical relief and institutional care and the need to maintain electoral support combined to increase the readiness of politicians to expand public health services.

The epidemic may have had a crucial impact on the long-term demand for modern health care. In the years following, there was a real decline in government health spending and per capita incomes and little expansion in the delivery system. However, the increased utilization of health facilities during the epidemic itself persisted afterward (Figure 2.2). Utilization numbers fell in 1936, but they never returned to the pre-epidemic levels, and instead began a steady rise which continued for another thirty years. Before the epidemic, annual utilization at modern health facilities averaged 1.1 outpatient visits per capita and 38 admissions per 1000 population. After the epidemic, they stabilized in 1936 at the level of 1.6 outpatient visits per capita and 60 admissions per 1000 capita. A possible explanation is that the increased use of government health facilities during 1934-35 exposed many rural people to modern health facilities, and thus increased their readiness to turn to them for treatment and care when sick.

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[1] This illustrates that publicly-financed health services in developing countries can have more than instrumental economic and health benefits - they may help to stablize emergent democracies and strengthen popular participation - all of which are key USAID goals.

[2] " [Paragraph] 108. In 1935 some fifty temporary hospitals were provided on private initiative. . . . As the epidemic progressed, the number of patients exceeded the reasonable limits of private charity and applications for assistance from the Government were received. . . . Many of these institutions were well run; all of them were used and appreciated by the villagers, and it was of the utmost importance not to discourage what represented . . . a magnificent charitable effort. At the same time a few of them were . . . a definite source of danger. . . As a result of this experience the Commissioner [for Relief] recommended that all such institutions should be left to the discretion of the Medical Department." (Commission on Social Services, 1947)

Expansion of the government health care system through public financing

Individual representatives became accustomed to making recurring demands for dispensaries and later "cottage hospitals' in their own constituencies. The nature of executive government under the Donoughmore Constitution magnified the impact. It placed government departments, with some key exceptions such as the handling of revenues, under the control of seven Executive Committees, which were elected by the legislators themselves. The Committees in turn elected their own chairmen, who formed a Board of Ministers. This served to impede the development of party solidarity as each Committee was quite autonomous, and each Minister had an incentive to develop his own immediate political constituency by using government revenues to reward friends. As with the American system of Congressional Committees, this encouraged politicians "to take [every] advantage of the government revenue with virtually no inducement to think except in the most parochial terms" (Wriggins, 1960).[1] This led to a major expansion in the public delivery system financed by increased mobilization of general revenues (Table 2.1 and Figure 2.3). This was not a supply-driven expansion of publicly-financed health services, but very much a demand-driven increase.

Table 2.1: Provision of government health services during Donoughmore Period

	1931	1936	1941	1948	Period change
MOH beds	9,436	11,716	11,425	18,822	+99 %
MOH dispensaries	603	674	812	887	+47 %
Annual admissions per 1000 capita	36	58	67	93*	+158 %
Annual outpatient episodes per capita	0.7	1.08	1.18	1.04*	+49 %

Source: Annual Administrative Reports
Note: Figures marked * are for 1947

Post-Donoughmore Era (1947-1994)

Although user fees for MOH facilities were in place throughout the Donoughmore Period, their contribution to overall resource mobilization was minimal. The expansion in government facilities was only achieved through increased allocation of government general revenues. As a consequence the degree of cost recovery in MOH facilities fell in percentage terms, although in absolute rupees terms the amounts increased (Figure 2.4).

On the eve of Independence in 1948, GOSL established a commission to inquire into possible options for future financing of social services. This commission, headed by Dr. Ivor Jennings, was known as the Social Services Commission. The Commission carried out an exhaustive review of social services, and consulted widely, including with William Beveridge in Britain. It provided several options for National Health Insurance, Social Security, Unemployment Insurance, and other programs, but in the case of health services, it noted that the government already provided an

[1] One of the ministers in the second Legislative Council most successful in using his position to cultivate an island-wide network of political allies and friends was the Minister of Local Government and Health, Mr. SWRD Bandaranaike. He went on to exploit this powerbase to form the SLFP, which became the first political party in Asia to defeat an incumbent government at a national election.

extensive program of health care services available to the whole country through tax-funding. The best option was to expand services by improving the existing system, instead of introducing an alternative system of health insurance, which would have major problems of implementation in the Sri Lankan context (Commission on Social Services, 1947).

So in the first ten years of independence there was no change in the thrust of government policy. Government spending on health services was expanded both in absolute terms and as a percentage of national income. At the same time, an official policy of free health services was adopted with the system of income-tested user fees being abolished in 1951. However, as noted below, this was of more symbolic significance than of fiscal importance.

The limits of public financing

This ambitious expansion of government-funded health services was ultimately based on the transfer of resources from the dynamic plantation sector of the economy to the social sectors through the mechanism of government export duties. It could not continue indefinitely without an equivalent expansion in government tax revenues. This was not so.

The ambitious expansion of social welfare commitments created major economic imbalances. The estate sector could not generate additional production at a rate fast enough to meet the combined effects of accelerating population growth and expanded welfare services (Snodgrass, 1966). The government had become politically committed in a fairly rigid way to roughly constant per capita expenditures on a whole range of consumption services, including education and health during the 1930s and 1940s (Snodgrass, 1966). When the impact of rapid population growth began to be felt (the result of the earlier success in reducing mortality rates), it was politically impossible to reduce levels of public commitment (Alailima, 1991). So while during 1948-1960, government capital expenditures rose 162%, transfer payments rose 218% and current expenditures by 234%. Capital investment fell as a percentage of the total (Snodgrass, 1966). As expenditures rose faster than revenues, structural fiscal deficits were financed by running down the country's considerable foreign reserves. When these ran out in 1960, the government was forced to introduce foreign exchange controls and control government spending. From then on the Sri Lankan economy was fundamentally hampered by the scarcity of foreign exchange, and the economy stagnated (Moore, 1990).[1]

The impact of this on health expenditures was immediate. As fiscal stringency became necessary, it was no longer possible to maintain the same level of public spending, and the share of national income spent by government on health services started a long decline from its peak of 2.3% of GDP in 1959 to reach a low of 1.1% in 1982. As growth in real per capita incomes was also minimal during this period, real per capita levels of spending stagnated just below their peak of Rs. 214 (1990 constant rupee terms) for the next decade, before experiencing a rapid decline after 1972 to reach a low of Rs. 167 (1990 constant rupees) in 1982 (Figure 2.4 * and Table 1.3).

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[1] The fundamental problem identified by Snodgrass (1966) was that no alternative source of foreign exchange earnings seemed likely to develop to replace plantation exports. It was only with the expansion of industrial exports in the 1980s and 1990s, that an alternative source of foreign exchange earnings emerged, and GOSL was in a position to remove foreign exchange controls substantially in 1992.

Box 2.1: Motivation for and discussion of Welfare-Growth debate

Several factors need to be considered when thinking about the optimum resource allocation for health care services. The *amount* of resources to be available for allocation is restrained by the government budget and the requirements of sustainability. The *method* of allocating those resources *within* the health sector (e.g. hospitals and clinics) needs to be guided by the concerns of equity and efficiency. These issues have been elaborated elsewhere. There is, however, a further efficiency question that must be considered. It is the question of efficiency when allocating resources *between* different sectors of the economy (e.g. health and infrastructure).

Two kinds of tradeoffs need to be considered in optimizing this trans-sectoral allocative efficiency. First is the reduction in health costs as a result of spending in another sector. For example, spending on primary education may improve awareness regarding sanitation and health hazards, thus reducing health care costs. We may call this a substitutionary trade-off. Second is the increase in revenue to the government as a result of spending on productivity and development oriented sectors. For example, spending on infrastructure development may stimulate economic growth and reduce the government budget constraint through increased revenue. This increase in revenue could in turn lead to a reduction in poverty, in turn leading to a better standard of health. We may call this an income growth trade-off.

This income growth trade-off has been the focus of much debate and interpretation in the case of Sri Lanka and its spending on welfare. Early views on this debate suggested that high income growth was sufficient to maintain good standards in the social sector. High levels of welfare spending that tangibly cut into growth initiatives were seen as sub-optimal allocations of resources even in terms of improving welfare. This view was challenged in the late 1970s and early 1980s. Isenman (1980) and Sen (1981) argued that Sri Lanka, although poor, had an enviable record on social indicators, due in part to high and effective social spending. Bhalla and Glewwe (1986) disputed these claims. They argued that although Sri Lanka's social indicator levels were high relative to income, the *improvement* on those levels even when social spending was quite high (from 1960 - 1978) were unexceptional. They went back to the initial argument that Sri Lanka's level of social spending was sub-optimal (i.e. at levels which reduce growth to the point of retarding the progress of those very social indicators). The Bhalla and Glewwe regressions and assumptions have since then been questioned. But the shift in focus from levels of social indicators to improvement in social indicators remains very important.

In recent studies, Anand and Kanbur have found that infant mortality rates were negatively correlated with both welfare spending and income growth, but that welfare spending had a stronger impact. Anand and Ravallion (1993) also present evidence that both welfare spending and growth matter for welfare indicators, but that growth matters primarily through improved financing of welfare. Aturupane, Glewwe and Isenman (1994) as well as Sen and Anand further highlight the need to pay attention, not just to income-growth but to how that increased income is used in the financing of welfare. Aturupane et al. (1994) show that there are countries that fall into all four of the following quadrants

	Decreased growth	Increased growth
Better IMR indicator	*Many Latin American countries*	*Many East Asian countries*
Worse IMR indicator	*Many African countries*	*Many South Asian countries*

When the countries are plotted on axis that demarcate these quadrants, it is seen that the line that accounts for income growth has a better fit than the line that does not. However, income growth explains only a small percentage of the variance. The conclusion then is that growth matters. But growth is not the only thing that matters. And how much growth matters depends on how the fruits of growth are channeled into welfare.

So has there been a negative effect on the welfare indicators as a result of high welfare spending that led to impaired economic growth? To answer this question conclusively we need to estimate the counterfactual, i.e., what would have been the effect on growth and welfare if the welfare spending was diverted to growth sectors? This question remains unanswered, and a conclusive answer remains elusive.

We can conclude, however, that in terms of improving welfare indicators, income-growth must not be treated as an end in itself. It is only a *means* to an end through facilitating higher sustained levels of welfare spending, and reducing the incidence of poverty. Furthermore, this method of welfare improvement is not a welfare improvement for *all,* because it constitutes a redistribution of welfare from the present to the future. So the income-growth trade off must be seen as complex one. It is significant only when income growth can be meaningfully channeled in order to increase welfare spending and reduce poverty, and it is further complicated by the equitability of trans-generational welfare redistribution.

High levels of health indicators have been achieved in Sri Lanka in conjunction with government expenditure on the health sector being maintained at a very low level. i.e. at 1% of GDP. So in the case of the *health* sector in *Sri Lanka* the above mentioned trade-off problems remain only of academic interest.

This experience of initially high social welfare commitments resulting in impaired growth performance has led Sri Lanka to be the focus of much of the growth-welfare debate (Box 2.1). However, high health expenditures were not the major cause of Sri Lanka's problems. Health spending always comprised a small proportion of total social expenditures and transfers, whose expansion was largely driven by increases on education and food subsidies. When examined in comparative perspective, actual levels of health spending during 1950-80 at 1.5-2.0 % of GDP are not excessive (Figure 2.5.). This was equivalent to US$3.3 to 5.0 per capita when measured in 1990 constant US dollars, which is not only much less than the average level of government health expenditures in Sub-Saharan Africa in 1990 (US$13.3 per capita), but also far less than the cost of the World Bank's recommended minimum cost-effective package of basic health services, which costs US$12 per capita (World Bank, 1993). Sri Lankan governments have in fact been low spenders on health. From this perspective, the welfare-growth debate is irrelevant from the perspective of Sri Lanka's health sector.

Impact of fiscal constraints on provision of health services during 1960-78

Although there was a decline in the share of national income and in the real level of per capita spending by government during the period, it was not accompanied by a fall in the level of provision. Instead, government services continued to expand, albeit only at the same rate as population growth, so the overall per capita levels of provision remained essentially the same (Table 2.1). This stagnation in per capita levels of provision is also associated with an end to the long increase in per capita utilization which had manifested itself from the 1930s. Inpatient admissions per capita at MOH facilities finally plateaued, but did not fall, at about 150 -160 admissions per 1000 capita per year. Outpatient utilization initially plateaued at about 2.8 visits per capita per year, but then fell significantly from 1972 onwards (Figure 2.6). This decline is however not correlated with the start of fiscal stringency in 1960, but with the reintroduction of user fees in 1972.

During the period 1960-70, there were substantial changes in the share of national income spent by government on education and food subsidies, yet little change in health spending. To that extent it would seem that health spending was not as susceptible to short-term changes in fiscal policy during periods of fiscal expansion, and relatively protected when government spending was under pressure. It was only in 1971, that there was substantial cuts in public spending on health, and this was associated with the reintroduction of user fees for the first time since 1951. The reintroduction of user fees had a major impact on outpatient utilization which fell to levels not seen since the mid-1950s. While there was a reduction in government expenditures during this period, there was no attempt to increase reliance on private sector financing. In fact, private practice by government doctors was banned during this period, and substantial controls were imposed on the private pharmaceutical importing and retail sector.

Developments since economic liberalization in 1978

The 1977 election resulted in a major reorientation in economic policy in Sri Lanka towards greater reliance on market forces and integration into global markets. However, while the involvement of the Bretton Woods institutions in Sri Lanka increased substantially in this period, it was also associated with considerable relaxation in fiscal policy, as government expenditures expanded faster than revenues. The incoming government also abolished user fees as one of its first acts of office. Health spending benefited from this initially by a stabilization of the downward trend that had become manifest after 1970, followed by substantial increases in spending after 1980. During the 1980-1995 period there have been substantial increases in government spending on health services, not only in real per capita terms but also as a share of national income. At the same time, a substantial increase in private sector financing and provision has become manifest, largely as a result of strong per capita income growth, and a relaxation of government controls on private sector provision.

Public sector user fees

Government health services have levied user fees in some form or other from their inception in the nineteenth century. Over time the relative contribution of official user fees has nevertheless declined, and they have constituted an insignificant source of revenues since the early 1960s, despite several attempts in the past two decades to selectively increase reliance on them. Three different phases in the implementation of user fees can be identified: (i) Pre-1951, (ii) 1972-77, and (iii) the post-1984 Sri Jayewardenepura General Hospital experience.

Pre-1951 experience

Up to 1951, when the principle of free medical care was established, the health ministry earned revenues from three major types of user fees: (i) means-tested user fees for basic services, (ii) fees from pay-wards, and (iii) opium sales.

Basic services

From the end of the 19th century, basic government health services were provided free, subject to an income limit. In many respects, this policy was relatively advanced for its time, as noted by the Social Services Commission (1947). Those earning less than Rs. 50 per month received free treatment. Those earning more than this basic minimum received treatment subject to the following charges.

Table 2.2: Standard user fees in the 1940s

At dispensaries			
Annual income of patient	*Rs. 600-1,199*	*Rs. 1,200 - 2400*	*Above Rs. 2,400*
Charge	50 cents per visit	Rs. 1 per visit	Rs. 2 per visit
Indoor treatment			
Monthly income of patient	*Rs. 50-83.33*	*Above Rs. 83.33*	
Charge	30 cents per day	50 cents per day	

Source: (Commission on Social Services, 1947).

In practice the income limit was rarely enforced, as the administrative machinery did not exist. No staff were mandated to check patients' income, and facilities relied on self-reporting (Commission on Social Services, 1947). It should be noted that during the late 1940s, per capita GDP was in the range of Rs. 200 - 400 per annum, so the lowest income limit of Rs. 600 would have been equivalent to at least one and a half times average income. Data from the 1953 Consumer Finance Survey suggest that more than 90% of the population were at a consumption level of less than Rs. 600 per annum in that year, and in the late 1940s this percentage would have been much greater. It is reasonable to assume that much less than 3% of the rural population would not have been entitled to free care, and that this level of user fees would have had no negative effects on utilization of needed care by most Sri Lankans.

It is apparent that the price levels prevailing by the late 1940s were considerably below the actual average cost of services. If all patients had paid the highest band of prices, total revenues would not have reached two-thirds of MOH recurrent expenditures. [1] Even high income patients, who paid the stipulated fees, were receiving highly subsidized medical care.[2] In addition to these fees which were for the provision of standard services, patients could choose to pay for the privilege of being treated in separate fee-paying wards, which were located in the large hospitals.

Opium sales

Opium is derived from the juice of the opium poppy (*Papaver somniferum*).[3] The opium plant does not grow in Sri Lanka, and opium was not traditionally used other than in Ayurvedic medicine. In the early British period, opium was freely imported and sold, and consumption escalated dramatically. In 1867, the sale of opium was restricted to licensed opium shops, which paid license fees. These fees were a considerable source of revenue to the government.

The increase in opium consumption was associated with considerable social depravity. Increasing public agitation against the opium policy of the government was resisted by both the unelected official members of the Council and the medical profession, until action was initiated in London to suppress the opium traffic in Sri Lanka. In 1908, legislation closed down all opium shops, made the import, distribution and sale of opium a government monopoly, and allowed the sale of opium to registered addicts only by government dispensaries (Uragoda, 1987).

This resulted in a steady decline in the number of registered addicts, mostly by natural death, and no significant cases of new addiction. In revenue terms, the sale of opium by the Health Ministry to registered addicts produced a steady and predictable stream of revenues, which gradually declined over time as the number of addicts fell. In the 1920s, opium sales generated significantly more than other user fees, but by the 1950s they had become insignificant.

Contribution to revenues

The total amount of revenues raised through both these fee systems was small, and declined as a proportion of total MOH recurrent expenditures over time (Figure 2.7). Levels of cost recovery declined from approximately 25% in 1920 to reach 3% in 1951. This was due partly to a steady erosion in the real price level of user charges with time and the dramatic increase in government health expenditures during the 1930s and 1940s, as public health facilities were expanded into rural areas, which had never generated significant user fees.

In 1950, the government introduced the principle of "free health services to the entire population", and abolished even the nominal charges that existed. The principle of a citizen's right to free government health care was firmly accepted, and the comparable duty on the state to provide for

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1 Estimate made by multiplying the total number of reported bed-days and outpatient visits in 1947 by Rs. 0.50 and Rs 1 respectively.

2 The actual subsidies received by these patients were more than implied by the average figures. More than two thirds of user fees were collected by Colombo hospitals, which also received the highest level of operating subsidies.

3 Opium contains several active constituents, including morphine, from which heroin is derived.

such services. It should be noted that by this time, user charges were already insignificant sources of revenue, and the change in official policy had little material effect. Data on MOH revenues indicate no apparent change in the trends after 1950 (Figure 2.8).

1971-77 experience

During the period 1950 to 1971, there was some concern in the Finance and Health Ministries about the fiscal cost to the public purse of providing government health services, and officials made several proposals to relevant ministers to re-introduce charges. However, the idea of reintroducing charges was an anathema to elected politicians from both the major political parties (UNP and SLFP), and no minister was willing to countenance even official consideration of such a policy, because of what was perceived to be the potential negative reaction of the electorate (Wanasinghe, 1996). Only in 1971, with severe fiscal constraints and a Marxist Finance Minister intent on achieving fiscal savings, were user charges introduced. Evidence indicates that pressure for the change came in this instance from the Finance Ministry, and not from the Health Ministry, and that opposition to the changes by government MPs was resisted by the leftist leaders who played a dominant role in economic policy at the time (Athukorale and Jayasuriya, 1994; De Silva and Wriggins, 1994).

A 25 cent "token" charge was introduced for all outpatient first visits at MOH facilities. Inpatients were exempted. The fee was imposed on all patients without exception, although subsequently the indigent and those seeking treatment at STD clinics were later exempted. It was payable by purchase of a 25 cent postage stamp, which was to be pasted on the OPD ticket, and canceled by the medical officer in attendance. All OPD cards had to be retained for purposes of audit. This system had its problems, principally that there was a considerable delay in auditing, and that it was never possible to completely reconcile the number of tickets issued with the number collected.

The revenues so earned reverted back to the Treasury through the postal department. The purpose of this measure was not to achieve full cost recovery, but to raise some additional funds for the government in general, and to discourage what was perceived as excessive and unnecessary use of government facilities.

Impact of "token" fee

Since the fee was payable to the Postal Department, the Health Ministry did not benefit in any way. Approximately Rs. 4.5 - 6.0 million was raised each year through the fee,[1] compared with annual recurrent expenditures of the Health Ministry during 1971 - 77 of Rs. 250 - 450 million. The effective rate of cost recovery was only 1.5 - 2.0% of recurrent costs.

In contrast to the negligible contribution to revenue mobilization, the impact on utilization was significant, with a 30% reduction in outpatient episodes at MOH facilities from 2.39 per capita in 1970 to 1.71 per capita in 1972 (Figure 2.9). Total numbers did not return to 1970 levels until after 1977, when the fee was abolished. There was no discernible impact on inpatient visits, for which no fee was payable. Viewed in the long-term, the impact on outpatient utilization of MOH facilities was more dramatic. Historically, outpatient visits per capita at MOH facilities had risen continuously, with a small pause during the Second World War, from 0.75 per capita in the early

[1] This is based on multiplying the reported number of outpatients by 25 cents.

1920s to peak at 2.9 per capita in the early 1960s, before leveling off at about 2.8 per capita. The "token" fee seems to have not only reduced visits during its imposition, but also to cause a permanent reduction in utilization levels, which has persisted into the 1990s, some two decades after the fee was abolished (Figure 2.9).

There is no data on the equity impact of the fee. However, it should be noted that while the real value of the fee was comparable to the outpatient fee charged during the 1940s,[1] it was implemented across the board with no exemption on the grounds of income. While in the 1940s, the majority of the population would have been too poor to have been liable for the charge, the impact on the poor in 1972 would have been quite dramatic. It can be conjectured that the reduction in utilization amongst the poorest third of the population would have been much greater than the average 30% observed.

It is not possible to directly assess the political impact of the "token" charge, as it was introduced with a number of other unpopular cost-saving measures. However, all contributed to a string of massive by-election defeats for the ruling coalition during the months following (De Silva and Wriggins, 1994). In the 1977 General Election campaign, the opposition made the fee an election issue with which to attack the government, and when the UNP coalition was returned to power that April, one of its first measures was to do away with the charge.

Sri Jayewardenepura General Hospital

Sri Jayewardenepura General Hospital (SJGH) is a 1,001 bed tertiary hospital located just outside Colombo in the capital city of Sri Lanka, Sri Jayewardenepura Kotte. It was built with the original intention of being a Post-Graduate Teaching Hospital with Japanese grant aid, as a gift to the people of Sri Lanka.[2] Because of its unusual origins, it was not established as a normal Health Ministry hospital. It is run as a facility under a Statutory Board. It is the only government hospital that is managed by an autonomous board, and the only one with a comprehensive scheme of user fees. The question of user fees in Sri Lanka cannot be explored without investigating the experience at Sri Jayewardenepura Hospital.

SJGH started operations on the December 1, 1984 and admitted its first inpatients on December 15, 1984. From its inception, SJGH has charged fees from all outpatients, and from "non-poor" inpatients. It is allowed to retain the revenue from these fees and other services that it sells, though the bulk of its income remains a block grant from the Health Ministry vote. The existence of fees at this hospital does not seem to have caused much conflict with the principle of free medical care, as its services are in addition to the free medical services provided by the main MOH hospitals in Colombo, and since it was originally expected to provide a level of service higher than normally provided by MOH hospitals.

The system of fees used at SJGH is set by the Board of Directors. In judging its experience with user fees as a resource mobilization method, it should be noted that (i) the Board does not have complete autonomy as several of its board are ex-officio members from the Health Ministry, and

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[1] In 1972 constant rupees, the outpatient charges of the late 1940s were equivalent to Rs. 0.15 - 0.80 per episode.

[2] This was in recognition of Sri Lanka's role during the 1953 San Francisco Peace Conference in averting the imposition of war reparations on Japan after the Second World War.

(ii) the Board does not appear until recently to have regarded additional revenue mobilization as a major objective. Since the early 1990s, the large allocation of MOH funds to SJGH become an issue in various quarters, and the Board has been under pressure to increase revenue mobilization from non-budgetary sources (Presidential Task Force on Formulation of a National Health Policy for Shri Lanka, 1993).

Contribution to resource mobilization

The capital costs of SJGH were met through Japanese grant aid. Recurrent costs of operation are met primarily through a block grant each year from MOH, supplemented by revenues from the sale of hospital services. The hospital charges a standard fee for outpatient visits and for drugs, and a tiered system of fees for inpatient stays, based on class of ward and self-reported income. For admissions to the general wards, fees are based on patient-reported income. There are two other sets of beds, Class 1 and Class 2, which have a greater degree of privacy and amenities, but for which the medical treatment is the same. The fees for Class 1 and Class 2 beds are fixed.

Figures 2.10 and 2.11 give details of the patient revenues of SJGH since inception. The cost recovery ratio has been calculated as the ratio of patient revenues to total reported expenses minus provision for depreciation. This ratio gradually increased from 3% in 1985 to reach 21% in 1994, the last year for which complete accounts are available. During the first five years of its operation, there was no change in the level of fees, while there was a 65% increase in the general price level in the economy. Despite this, there was a five-fold increase in patient revenues, which was related to an increased utilization of inpatient beds, with time and as additional beds were commissioned (Annex Table A.3). Price increases were subsequently instituted on January 1, 1990, and April 1, 1994 and November 1, 1995. The price increase in 1990 was associated with a doubling of revenues and the overall level of cost recovery to more than 20%.

Analysis of the April 1, 1994 price changes

Particular attention has been paid to the change in user fees effected on the 1st of April 1994, for which more complete data are available. The following graphs describe the pattern of utilization before and after this date. The discussion focuses on the nature of price change and how the patterns of utilization may be interpreted with regard to the price change.

Inpatient utilization

Table 2.3 gives details of the price schedules in effect before and after April 1, 1994, while Tables 2.4 and 2.5 depict the changes in admission prices and patient numbers admitted to Class 1 and Class 2 wards.

Table 2.3: Prices for inpatient admissions at SJGH before and after April 1, 1994

Before price change	*After price change*
General ward admissions varies according to three self reported income categories	General ward charges fixed, no consequence of self reporting income
Three classes of paying wards with different levels of comfort	Reduced to two classes of paying wards with different levels of comfort
No deposit on admission	Deposit on admission (the amount varies depending on type of ward entered)
Fixed charge for first outpatient visits	Fixed charge for first outpatient visit increased by 50%
No charges for intensive care	Charges introduced for Intensive care

The results show that the upper income group that chooses Class 1 wards showed virtually no reaction to the approximate 50% increase in price.[1] This inelasticity may suggest that the upper income group is willing to pay even higher prices for the type of care exclusive levels of health care treatment. Utilization of Class 2 beds shows a sharp reaction to the price change. Since the demand of this group was unit elastic the price change would have left total income from Class 2 admissions unaffected.

Table 2.4: Changes in prices of admissions to Class 1 and Class 2 wards, SJGH

	Before price change	*After price change*
Class 1 admission	No admission fee Rs. 500/= per day	Admission fee Rs. 7,000/= Rs. 700/= per day
Class 2 admission	No admission fee Rs. 200/= per day	Admission fee Rs. 3,000/= Rs. 300/= per day

Table 2.5: Changes in admission numbers to Class 1 and Class 2 wards, SJGH

	Before price change	*After price change*
Class 1 admissions	No significant change can be detected	
Class 2 admissions	Fluctuates between 300 and 170	Fluctuates between 220 and 105
	Drop of 33% in admissions Elasticity of demand to price $\cong 1$	

[1] It is presumed that the three-tiered price system sorts patients by ward type according to socioeconomic level.

Table 2.6: Change in bed occupancy by ward type, SJGH

	Change in average bed occupancy rate
General wards	No significant change
Paying wards	Gradual decline; overall approx. 25% drop
Class 1 ward	Approximate 25-30% overall drop
Class 2 ward	Approximate 20-25% overall drop

Here we see that even though the number of Class 1 admissions was not affected by the increase in price, that the duration of stay has dropped thus reducing bed occupancy rate.

Outpatient utilization

Table 2.7 gives details of the price schedules in effect for outpatient visits before and after April 1, 1990, while Table 2.8 depicts the changes in consultation prices and outpatient numbers.

Table 2.7: Prices for outpatient visits at SJGH before and after April 1, 1994

	Before price change	*After price change*
First visits	Rs. 50/=	Rs. 75/=
Subsequent visits	Rs. 25/=	Rs. 25/=

Table 2.8: Changes in monthly outpatient numbers at SJGH by type of visit

	Before price change	*After price change*
First visits	Oscillates between 450 and 620	Oscillates between 380 and 550
	Drop of 22% in first visits Elasticity of demand to price ≅ 0.5	
Subsequent visits	Oscillates between 9,000 and 7,000	Oscillates between 7,500 and 6,750
	Drop of 11% in subsequent visits	

We see from these results that outpatient visits are sensitive to changes in price. But less sensitive than the Class 2 ward admissions. Even though there has been no change in the price of subsequent visits, it is to be expected that the reduction in first visits will show itself in the reduction of subsequent visits as well. This is seen to be so. In terms of income generation while the elasticity of 0.5 suggests that income from first visits will increase as a result of the price increase, when the snowballing effect on subsequent visits is taken into consideration, it was found that total income from outpatient visits would have decreased by about 20%.

Change in self-reporting of income amongst General ward admissions

General ward patients are charged a fee for each day according to a sliding scale depending on their declared income. Tables 2.9 and 2.10 give the changes in the price schedule for each income category, and the change in the number of declaring themselves to be belonging to each income category.

Table 2.9: Change in price of inpatient bed charges at SJGH by self-reported income category

Income category	*Before price change*	*After price change*
Rs. <1,500	Rs. 20/=	Rs. 50/=
Rs. 1,500 - 2,000	Rs. 40/=	Rs. 50/=
Rs. 2,000 - 2,500	Rs. 60/=	Rs. 50/=
Rs. >2,500	Rs. 60/=	Rs. 50/=

Table 2.10: Change in General ward admissions at SJGH by self-reported income category

Income category	*Change by income category*
Rs. <1,500	Approximately the same
Rs. 1,500 - 2,000	Drastic drop [60 - 70%]
Rs. 2,000 - 2,500	Drastic increase [approximately 100%]
Rs. >2,500	Gradual increase

The changes in admissions by income category were not consistent across income level. There was a significant decrease in patients reporting an income level of Rs. 1,500 - 2,000, while there were increases or no change in other income categories.

The previous price structure in the general ward provided a very high incentive for those in the Rs. 2,000-2,500 income category to misreport their incomes as being in the Rs. 1,500 - 2,000 category. This would allow them a 50% reduction in room charges for the general ward. After the change in prices, this incentive disappeared, since room charges at the general ward were standardized for all income categories.

Since there was little incentive to misreport after the price change, we can conclude that the very high composition, before the price change, of those earning between Rs. 1,500 to 2,000 arose from misreporting by those earning a higher income. This conclusion is supported by the data which show a corresponding increase in the composition of the higher income groups after the price change. This provides evidence that when prices are set according to self-reported income level that there was and probably continues to be significant leakage due to under-reporting of incomes by patients.

Out-of-pocket household spending

Direct spending by households for medical treatment and care has always been a feature of Sri Lanka's health care system. The historical tradition in Ayurvedic medicine was for individual Ayurvedic practitioners to practice by visiting the homes of patients and being paid for their services (Gooneratne, 1988). In addition, it is possible, but impossible to confirm, that doctors in government hospitals in the pre-modern era also took fees from patients (Uragoda, 1987). Sri Lankans have also long been accustomed to self-medication and treatment using natural substances gathered by themselves or bought from outside the home. It can be presumed that these were the predominant features of the illness treatment of most Sri Lankans until the middle of the twentieth century.

The first Western medical practitioners, who entered the country from the fifteenth century onwards, were largely in the employ of governments or commercial agencies, such as the Dutch East India Company. Although in general they were expected to provide treatment on a salaried basis, many would have supplemented their income by treating Westerners and others for a fee, but this would have been extremely limited. The first private practitioners of modern scientific medicine only set up practice when government doctors began to retire from government service from the early 1800s onwards.[1] Private pharmacies, another recipient of household spending, also date from this period. Private hospitals started much later in the early twentieth century. Out-of-pocket spending has thus always been a funding mechanism that has paid predominantly for private ambulatory care and self-medication. Historically, this has been for ayurvedic and other traditional treatments, but starting the in mid-eighteenth century modern scientific treatment has been paid for also by increasing numbers of people.

Trends in household spending in the twentieth century

The earliest survey data on household spending are only available from the 1930s onwards, and the first national household consumption survey dates from 1953.[2] National household surveys have been carried out on a regular basis since then, and using these it is possible to compile a reasonable picture of changes in household spending on health care since 1953.[3]

Table 2.11 gives estimates of total household spending on health care categorized by source of care. In the table, western refers to the modern scientific system of care, ayurvedic includes all traditional forms of treatment, while the ceremonial category refers to the purchase of charms and

1 The first private general practitioner was probably a Dr. Misso, who retired and set up in practice in Colombo in 1835 (Gooneratne, 1988).

2 Many of the household survey reports discussed in this section were made available through the good offices of Mrs. Srimathi de Soysa, Chief Librarian, Central Bank. It was the intention of the authors to additionally review earlier surveys carried out in the 1930s. However, this was not possible owing to the murder of Mrs. de Soysa and most of her staff by LTTE terrorists in their attack on the Central Bank on January 31, 1996.

3 There are two sets of regular national household consumption surveys in Sri Lanka. These are the Consumer Finance Surveys of the Central Bank and the Household Expenditure Surveys of the Department of Census and Statistics. In addition, there is one semi-national household health expenditure and utilization survey carried out in 1992. There are considerable differences between the results reported by each of the two national survey series largely related to differences in the survey instruments. In the interests of consistency and of the widest possible time coverage, the Central Bank surveys are used in the following discussion.

other religious services for the purpose of illness treatment, as well as homeopathy, which is a non-scientific Western system of treatment. Various consistent trends are discernible from the table, except for what appears to a peak in spending on ayurvedic and ceremonial care in 1963. It is possible that this represents a real surge in spending, but it seems unlikely, as there does not appear to be any evident explanation for such changes. It is more likely that this is the result of under-reporting in the 1953 survey or over-reporting of these expenditures in the 1963 survey.[1]

Table 2.11: Trends in household spending on health, 1953-1987

	1953	*1963*	*1973*	*1978*	*1982*	*1987*
Household spending per capita						
Western	18	39	69	116	138	247
Ayurvedic	55	115	31	34	33	28
Ceremonial	28	36	16	14	16	27
Total	**101**	**191**	**116**	**163**	**187**	**302**
Per capita household spending (% of GDP)						
Western	0.2	0.4	0.6	0.9	0.9	1.4
Ayurvedic	0.6	1.2	0.3	0.3	0.2	0.2
Ceremonial	0.3	0.4	0.2	0.1	0.1	0.2
Total	**1.1**	**2.1**	**1.1**	**1.3**	**1.3**	**1.7**
MOH user fee revenues per capita	2.6	2.2	4 - 7	NA	1 - 2	NA
Government spending per capita	189	190	176	252	167	332
Government spending (% of GDP)	2.0	2.1	1.6	2.0	1.1	1.9

Source: Authors' estimates based on results of Central Bank Consumer Finance Surveys and IPS database.
Note: Rupee estimates are all given in 1990 constant rupees. MOH user fee revenues for 1973 and 1982 are estimates based on incomplete data.

The surveys show that households have consistently mobilized 1.1 - 2.1 % of GDP for direct spending on health care, and that as a percentage of GDP the level has increased consistently since the early 1970s. It is unclear what the trend was before 1973, because of the difficulties in interpreting the results of the 1953 and 1963 surveys. However, the data lend themselves to two possible explanations: (i) that total household expenditures were much higher in earlier years and then fell during the 1950s and 1960s, before rising again from the 1970s onwards, or (ii) that household expenditures were always less than 1.5% of GDP, and have risen consistently since the 1960s. In either case, the underlying increase in expenditures per capita and as a percentage of GDP has been due to a consistent increase in expenditures on modern Western treatment, which has more than compensated for declines in spending on traditional and other forms of care.

[1] In household surveys in other countries, including the USA, under-reporting of expenditures on traditional or unorthodox methods of treatment relative to those on conventional treatment is common. This is particularly the case when interviewers are not expecting to record such expenditures as medical expenditures, and when respondents are embarrassed to report such spending to interviewers. It is possible that both these types of factors were more likely to occur in the first Central Bank survey, which was carried out by Central Bank headquarters staff from Colombo.

With these trends, there has been a dramatic change in the use of household spending, which has shifted from financing mostly ayurvedic and ceremonial treatments to paying for mostly modern treatment (Figure 2.12 and 2.13). However, while spending on Western treatment has increased to reach more than 1.5% of GDP in recent years, very little of this has gone to paying user fees at government facilities. The actual share of household spending accounted for by government user fees has declined from just under than 10% in 1953 to less than 2% today.

It is difficult to disaggregate household spending into spending on ambulatory care and hospital based care. However, since the level of private hospital provision remained low throughout this period, it is reasonable to assume that 90% of all household spending up to 1987 went to self-treatment or ambulatory practitioners. Very little would have gone to paying for hospitalization.[1]

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1 Abel-Smith (1980) estimated that 10% of direct household spending in 1980 went to private hospitals.

Private insurance/employer schemes

There are two types of private third party financing systems existing in Sri Lanka. One is private health insurance (PHI) provided by insurance companies to companies or individuals, and the second and oldest type is the direct financing of medical care by employers for their employees.

Private health insurance

Historical background

The earliest recorded commercial insurance provider in Sri Lanka was Fowlie Richmond & Co., who were appointed as agents to the British Commercial Union Assurance Co., in 1833. During the next 100 years, other British, Australian, Canadian and Indian insurance firms appointed agents or established branch offices. The first locally-based insurance company commenced operations in 1939. In the next 22 years about 10 local companies were established in the market. All the companies transacted life, fire and marine business under the titles of *life* and *general* insurance.[1]

Insurance legislation and the nationalization of insurance

By the mid-fifties there were around 100 insurance organizations and there was no insurance law in the country. The lack of legislation led to various problems and to a review of the insurance industry after 1956. This led to a major re-structuring of the industry with the passing of the *Insurance Corporation Act No. 2 of 1961*. The Act nationalized the life insurance business, but did not take over the existing insurance companies, who were give the freedom to service existing policy holders. This Act resulted in the incorporation of the Insurance Corporation of Ceylon, subsequently renamed as Insurance Corporation of Sri Lanka (ICSL). ICSL took over the life business from the 1962. Thereafter, through a Finance Act, general insurance was also taken over in 1964. ICSL thus became the sole insurer in the country. The Act prevented other insurers from transacting any insurance business, and the people from placing their insurance with an organization other than the ICSL. The *Control of Insurance Act No. 25 of 1962* was enacted to carry out the administration of the existing companies, which continued servicing their existing clients.

ICSL's monopoly came to an end in 1980 with the passing of an *Insurance (Special Provision) Act No. 22 of 1979*, which allowed the formation of another State owned insurer - National Insurance Corporation (NIC). This was the result of agitation by the private sector. Though a government organization, NIC operated through private sector underwriting Principal Agents that handled limited claims subject to NIC supervision. The state remained in control of the funds and the reinsurance activities of NIC. Due to further agitation by the private sector companies, in 1986 the government allowed the private sector to compete with the two State Sector organizations. This was with the enactment of the following amendments: *Control of Insurance (Amendment) Act No.*

1 Much of this section of the report reviewing the private health insurance sector is based on a report prepared by Hema Wijeratne, who acted as consultant to IPS.

42 of 1986, Insurance Corporation (Amendment) Act No. 43 of 1986 and *Insurance (Special Provision) (Amendment) Act No. 44 of 1986*.

This resulted in the formation of 3 private sector insurance companies in 1988: Ceylinco Insurance Co. Ltd., Union Assurance Ltd. and CTC Eagle Insurance Co. Ltd. The *Control of Insurance (Amendment) Act No. 42 of 1986* allowed insurance brokers to function in the market, but prohibited the placement of insurance with those not approved by the Controller of Insurance. The only exceptions being insurance of enterprises, approved by the Greater Colombo Economic Commission (now the Board of Investments) under Section 17 of the *Greater Colombo Economic Commission Law of No. 4 of 1978*. A cabinet directive prevented foreign equity investments in the insurance sector.

From 1991 the government announced privatization plans for all state owned commercial organizations. This was as a result of pressure applied by the World Bank and other donor institutions. As a first step to privatizing the insurance business, ICSL and NIC were registered as limited liability companies in terms of the Company's Act. ICSL was renamed as Sri Lanka Insurance Corporation Ltd. (SLIC). The actual privatization plans relating to the two State sector insurers have not yet been finalized, and so they continue to function as limited liability companies solely owned by the State. In the meantime, again on the insistence of the World Bank, the government has under-taken to consolidate the legislation relating to insurance. This is now underway and it is expected that a new insurance law will be enacted by 1996

The portfolio of the general insurance business of Sri Lanka for the years 1991-1994 is shown in Table 2.12. In 1994, a specialist life insurance company, Janashakthi Life Insurance Co. Ltd. , was incorporated, and at the end of 1995 Janashakthi General Insurance Co., Ltd. was formed. The Janashakthi Company is the newest entrant to the insurance industry.

Table 2.12: Premium income for the general insurance business (Rs. millions)

Year	*SLIC*	*NIC*	*UAL*	*CTC-E*	*CIC*	*Total*	*Increase*
1990	1.434.2	2.92.2	3.03.4	193.2	163.6	2.386.6	
1991	1,479.4	2,43.4	3,12.8	195.2	230.0	2460.8	+3.10 %
1992	1,660.5	2,31.0	383.3	308.0	308.5	2,891.3	+17.5 %
1993	1,836.0	2,17.3	4,91.8	366.7	465.9	3,397.4	+17.5 %
1994	2,094.3	2,32.0	5,90.4	380.1	681.9	3,978.7	+17.1 %

Source: Company data

Overview of the private health insurance market

The nationalization of the Sri Lankan insurance industry retarded the development of insurance market, and in turn the development of PHI. ICSL/SLIC introduced their first PHI product in the late 1960s. This was a scheme for surgical and hospitalization expenses, and is still offered in its original unrevised form, although SLIC has gone on to introduce more up to date schemes. NIC on commencing business in 1980 followed SLIC by introducing similar products.

Before liberalization, the number of people covered grew slowly from between 15,000 - 20,000 in 1980 to about 50,000 in 1986 (Jayasuriya, 1990). Total PHI premiums in 1980 were estimated as Rs. 2.5 millions and total claims as Rs. 1.5 millions (Abel-Smith, 1980). After 1990, there was rapid expansion in the utilization of PHI, which may be partly related to the acceleration in economic growth that occurred. During 1991-94 the total number of people covered by PHI increased from 123,000 to 166,000. Of these the overwhelming majority (88%) were covered through group policies paid for by employers. In 1994 the insurance companies supported an estimated 8,473 policies, covering approximately 0.95% of the Sri Lankan population. 98% of the PHI policies are provided by the five market leaders in insurance provision: SLIC, CTC-Eagle, Union Assurance, Ceylinco Insurance, and NIC.

During the period 1991-94, total premiums paid for PHI increased from Rs. 53 millions to 120 millions, while actual claims reimbursed increased from Rs. 37 millions to Rs. 75 millions (Figure 2.14). Since the increase in premiums was faster during this period than that of claims, the percentage of premiums actually paid out in terms of benefits decreased from 70% to 63%. This implies that in 1994 approximately 37% of premiums went for administrative costs and profit, which is relatively high by international experience (Table 2.13).

Table 2.13: Transaction costs and profits in different insurance systems in early 1990s

Country	*Type of health insurance*	*Transaction costs to premiums*
Philippines	Unregulated private HMOs	45%
Sri Lanka	Commercial health insurance	37%
Chile	Regulated private insurance	30%
United States	Commercial health insurance	25%
Zimbabwe	Private medical aid schemes	<10%
Japan	Social health insurance	<10%
Germany	Social health insurance	<10%
Canada	Social health insurance	<10%

Source: (Hsiao, 1995), (Shaw and Griffin, 1995), authors' estimates.

The increase in claims was due to an increase in persons insured and an increase in the amount claimed per beneficiary. The latter quantity increased by 34% during this time period, when the general price level in the economy increased by 24%. Thus, there was a 14% real increase in per claims per beneficiary. Whether this was due to increase in utilization or an increase in medical prices cannot be determined from the aggregate data.

Characteristics of policies offered

Insurance companies market two types of PHI in Sri Lanka: individual policies and group policies. Group policies are paid for generally by employers on behalf of their employees, and have generally accounted for 70-80% of all persons insured. In most cases, this is provided as an employment benefit, with the employees making no contribution towards the premiums. Employers are permitted to charge group policies as a deductible expense when arriving at corporate tax liabilities. All the insurance companies offer group policies, and the premium rate is usually negotiated directly between the insurance company and the employer. From what is known, policies do not specify the providers to be used by the insured, and utilization of both public and private providers is permitted. Usual practice is for the patient to pay for the treatment themselves, and then to file for reimbursement either directly or through the employer, who in turn passes on the claims to the insurer. Individual policies are directly marketed by insurance companies to individuals. In general they offer similar terms to the group policies, but the premiums tend to be higher, while terms cannot be negotiated. Individual insurance premiums were a tax deductible expense, but this concession was removed in 1993.

All insurance schemes offer coverage of inpatient treatment. CIC was the first company to offer coverage of outpatient expenses, and the other companies have since followed suit in order to remain competitive. The rules for reimbursement vary considerably between policies, but all cap total reimbursements allowed each year or per episode, as well as specifying sub-limits for categories of expenses, such as drugs, room charges or doctors' fees. Recently in late 1995, Janashakthi General Insurance Co., Ltd. introduced three schemes which specify no sub-limits. Deductibles and copayments are also often specified, but the details vary between policy. Typical exclusions include pre-existing conditions, normal child birth, suicide, self-inflicted injury, STDs including AIDS, alcoholism, insanity, and conditions contracted outside Sri Lanka. Some policies cover only the primary beneficiary, but many also cover immediate dependents, in particular spouse, children and parents. Often the deductibles and copayments for dependents are more greater than for the primary enrollee. (Figure 2.15).

Administration of PHI schemes

In general, PHI schemes are written under the Miscellaneous Accident Department of each of the companies, except for CIC. CIC has a separate department (Suwa Sampatha) for its PHI business, although it too reports it in its annual accounts under the Miscellaneous Accident portfolio. Annex Table A.2 gives an analysis of the contribution of PHI premiums to total miscellaneous accident premiums in 1994. The miscellaneous accident category covers such items as burglary, personal accidents and travel, professional indemnities, etc. With only a small contribution to overall business, insurers (with the exception of CIC) treat PHI as a potential loss-leader for other insurance products.[1] For most of the insurers, it is provided in order to accommodate corporate clients and to obtain the balance of their insurance portfolio. These companies in fact would not even accept this class, unless a substantial share of the remaining insurance needs are held with them. CIC does however treat PHI separately, and will accept business on its own from its clients.

PHI premiums are not calculated on any proper basis, actuarial or otherwise. Companies do not routinely review their schemes (except CIC), and none have any detailed financial or management statistics. The companies do not separately track business under the PHI heading, and so it was extremely difficult to obtain even the data given in this report. They generally introduce new schemes or enhanced benefits merely in response to consumer demand and the rising costs of medical care. Claims experience is not taken into account when developing new products, as there are no available statistics. Competition for general insurance business is quite intense, and so PHI accounts are often subject to premium reductions without any logical reason, since direct profits are not the main objective in supplying this coverage.

Administration of PHI policies is labor intensive; it is not computerized. Companies must know the personal details if all those who are covered, and the claims need to be checked closely in view of sub-limits for room rates and for other specified categories and annual limits. No insurer assigns any employees specifically for this business, or uses special administrative procedures for these portfolios. Normal clerical and managerial staff are used to administer claims and attend to under-writing. They are not specially trained, and if any medical information is required, the papers are referred to the companies' medical officer or an external medical referee.

[1] Alhough premium income is more than claims, PHI can still be loss-making because of high administrative costs.

Empirical assessment of the private health insurance industry

As in most developing countries, the private health insurance sector in Sri Lanka has not been the subject of previous analysis. It is thus a largely uncharted territory of economic research. The major difficulty confronting any examination of the insurance sector is the lack of data. To deal with this problem, an extensive process of primary data collection and analysis was carried out by IPS for the purpose of this study. Additional details of this are given in Annex B, and in a forthcoming IPS publication. The most pertinent findings are discussed here.

Analysis was done of a random selection of insurance claims records, collected from three insurance companies, CTC-E, UAL and CIC, which account for more than two thirds of the total PHI market.[1] The sample consisted of 1,825 individual claims filed during the two year period March 1993 to June 1995. Of these claims, 862 were for inpatient episodes, and 963 were for outpatient episodes. The value of the claims reimbursed represented approximately 5-7% of the total value of medical claims reimbursed nationally during the same time period by all the insurance companies.[2] Data was extracted from these claims and entered into a database for the purpose of analysis.

Composition of beneficiaries

Tables B.6 and B.7 give the composition of beneficiaries filing claims by age group and sex and geographical distribution. With the exception of the under 1 year age group, the distribution of PHI claims is disproportionately from the 16-60 years age group. Children and the elderly are underrepresented. Amongst outpatients, there is a predominantly male distribution at all ages, except for the 16-35 years age group. The larger number of females in the 16-35 years age group is largely explained by gynecological and obstetric cases.

Descriptive data on the private hospital inpatient population in Sri Lanka are not routinely available. One survey of private hospital inpatients carried out in 1990 (Rannan-Eliya, 1990) collected patient demographic data, and it is possible to compare its results with the data on insurance patients. Table B.6 in Annex B gives the age distribution of inpatients from the data on insurance patients, and Figure 2.16 compares the age distribution of the insurance inpatients with that of the 1989-90 inpatient sample. In the 1990 survey, more than 10% of all inpatients were aged over 60 years, while only 2% of insurance-financed inpatients are over 60 years.[3] Amongst adults as a whole, the proportion of insured patients who are aged 30 - 55 years is greater than in the reference population. While slightly over half of all private hospital inpatients are female, the opposite is the case with the insured population. PHI appears to disproportionately finance inpatients who are male and in the 30 - 55 years age group, which is what one might expect since private insurance is typically a formal sector employment benefit.

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1 Claims records from a fourth company, SLIC, were also collected, but data entry from these was not completed in time for inclusion in the analysis for this report.

2 The total value of reimbursed claims in the sample was Rs. 9.4 millions, while reported claims expenditures by the four largest companies in 1994 was Rs. 75 millions. The results reported refer to the sample of claims examined. They describe only the characteristics of the beneficiaries who claimed reimbursement and the episodes for which reimbursement was claimed. They do not necessarily represent the characteristics of those beneficiaries who did not seek medical care or who received medical care without claiming reimbursement.

3 Approximately 8% of the national population are aged 60 years and over.

Table 2.14: Age and sex distribution of PHI claimants

Age group (years)	*Reference population*	*Outpatient (%)*			*Inpatient (%)*		
		Female	*Male*	*Total*	*Female*	*Male*	*Total*
< 1	1.8 %	25	15	19	3	3	3
1 - 5	0.4 %	0	3	2	5	9	7
6 - 15	2.0 %	2	2	2	6	8	7
16 - 35	55.6 %	35	29	31	52	31	41
36 - 45	15.6 %	15	25	22	21	25	23
46 - 60	14.2 %	21	22	22	14	22	18
> 60	10.3 %	2	3	3	1	4	2
N =	465	48	91	139	381	397	778
Percentage of total	100%	35%	65%	100%	49%	51%	100%

Source: See text.

The geographic distribution of claimants is skewed in favor of the major urban area of Colombo, which is the wealthiest and most economically developed part of Sri Lanka. Over 90% of all claims are filed by individuals from Colombo district, which accounts for only 11% of the national population. Even Gampaha and Kalutara districts, which are adjacent to Colombo and have above-average incomes, account for only 3.5% of all cases.

Reimbursement of expenditures by insurance

Table 2.15 gives the breakdown of beneficiaries according to their insurance status and sex. Less than 10% of all claimants are insured as individuals, with the large majority either being covered through employer schemes as employees, or being the dependents of a covered employee. Many women are in fact covered as spouses of covered employees, the majority of whom are male.

A wide range of maximum annual limits, deductibles and copayments are charged by the various schemes. The total limits on reimbursements vary from Rs. 625 to a maximum of Rs. 250,000, with a median of Rs. 14,750. For those claimants, whose total expenses were below their maximum limit, the mean amount reimbursed was 92% of actual medical expenses. In only 7.8% of cases, was the total of actual expenses greater than the specified maximum reimbursement, and in these cases an average of only 59% of expenses was reimbursed. For inpatient episodes, where the mean total expenses is high (Rs. 13,713), 91% of all expenses were reimbursed. For outpatient episodes, on average a high 87% of all expenses were reimbursed.

Table 2.15: Status of insurance claimants

Status of beneficiary	*Female (%)*	*Male (%)*	*Number in sample*	*Percentage of total*
Individual	5	11	156	9
Employee	50	61	1034	57
Spouse	31	6	282	15
Child	12	14	237	13
Others	3	8	113	6
Number in sample	**714**	**1108**	**1822**	**100**

Source: See text.

Distribution of expenditures financed by insurance

Table 2.16 summarizes the composition of patient expenditures by type of expense for both inpatients and outpatients separately. This shows that approximately one third of all insurance-reimbursed expenditures are for doctors' fees. Drugs and tests account for more than half of outpatient expenses, but only 37% of inpatient expenses. The high percentage of outpatient expenditures accounted for by drugs is partly explained by the practice of many Sri Lankan clinic doctors to recover the costs of their services from the dispensing of drugs instead of from consultation fees.[1]

Table 2.16: Composition of patient expenditures financed by insurance

	Outpatient claims		*Inpatient claims*		*Total claims*	
Doctors fees	324	39 %	4,095	30 %	2,105	31 %
Drugs	367	44 %	3,457	26 %	1,826	27 %
Tests	114	14 %	1,289	35 %	669	10 %
Nursing charges	21	3 %	1,349	10 %	648	10 %
Hospital charges	0	0 %	3,292	24 %	1,555	23 %
Total	**826**	**100 %**	**13,482**	**100 %**	**6,803**	**100 %**

Source: See text. *Note:* Numbers are mean values in rupees of all claims in sample.

Table 2.17 describes the utilization pattern of insurance beneficiaries, as observed from their claims. In general, more than 90% of all episodes involve treatment at private facilities. This is partly to be expected, as most treatment at government facilities is free, and therefore would not result in a claim for reimbursement. Amongst outpatient episodes, private clinics account for almost two-thirds of all episodes, whilst for inpatient episodes private hospitals account for over 90% of all admissions.

When the overall use of funds is examined, it is found that private hospital treatment accounts for more than 90% of all expenditures associated with private health insurance, while private clinics account for only 3%. The low share of funds flowing to private clinics, despite their predominant role in the provision of outpatient care, is due to the comparatively lower mean cost of an outpatient episode relative to an inpatient admission.

Table 2.17: Distribution of utilization and expenditures by provider type

	Outpatient		*Inpatient*		*Total*
	% of episodes	*Mean expense (Rupees)*	*% of episodes*	*Mean expense (Rupees)*	*expenses (%)*
Government hospitals	2	948	7	8,171	4.1
Private hospitals	33	1,321	92	14,002	90.5
Private clinics	60	694	0	0	3.2
Ayurvedic hospitals	0	0	1	8,171	0.5
Ayurvedic clinics	1	531	0	0	0.0
Pharmacies	4	349	0	0	0.1
Others	1	802	0	96,690	1.1
Total	**100**	**889**	**100**	**13,714**	**100.0**

Source: See text.
Note: The high inpatient cost of the 'Others" category is due to the inclusion of two episodes at foreign hospitals.

[1] This is the same practice as in Japan and several other South-East Asian countries, such as Thailand.

Trends in medical prices

Using the insurance sample data, it is possible to examine the trends in prices paid by insurance beneficiaries during 1993-95. This is of interest as insurance is still an emerging financing mechanism in Sri Lanka. One would expect on theoretical grounds that insurance will result in increased prices as the price faced by consumers falls, in a situation where prices are set by the market and are unregulated.

Table 2.18 gives the mean cost per episode for inpatients and outpatients of the major reimbursable items of medical care each year.[1] This shows that for doctors fees, drugs, tests and hospital beds, the mean price paid per episode by insurance beneficiaries rose during the period under study by more than the general price level in the economy.[2] Outpatient charges show the greatest increases for all items, with doctors fees for outpatient episodes rising by more than 192% compared with a 21% increase in doctors fees charged for inpatient episodes. Outpatient drug costs increased at approximately the same rate as outpatient doctors fees. The correlation between the latter two may not be coincidental, and might be explained by the fact that the price paid for drugs at many private clinics does not represent a charge for the drugs themselves, but is more a charge for the doctor's time.

Why doctors fees for outpatient visits in particular increased considerably more than for inpatient episodes is not at all clear. It is possible that the results may be partly explained by sampling biases, but the large difference observed cannot be explained solely on those grounds. The most likely explanations are (i) that real prices for outpatient medical consultations did increase considerably during this time, (ii) the price charged for outpatient consultations by insured patients increased relative to that charged to other patients, and (iii) a combination of both factors. The latter might have occurred as doctors in private clinics became more aware of the existence of PHI during this time period, which would be consistent with the increased population coverage and the intensified marketing of PHI by the insurance companies. It implies that doctors in the outpatient setting are more likely to engage in price discrimination when patients are insured than doctors in hospital and hospitals themselves. It is not possible to verify this, without conducting a survey of prices paid by both insured and non-insured patients at the same providers, but it would be consistent with results reported from The Philippines (Gertler and Solon, 1995).[3]

Table 2.18: Price trends of insured medical items

[1] The figures given are the mean price paid by insured patients, and not the amount actually reimbursed.

[2] Authorities do not compile a separate medical price index in Sri Lanka, so the Central Bank GDP deflator is used as the best available inflation measure. The data underestimate the real price changes, as the 1993 and 1995 samples are drawn mostly from the second half and first half of each year respectively, thus leading to overestimates and underestimates respectively for 1993 and 1995 prices.

[3] There are no laws restricting price discrimination by doctors in Sri Lanka.

	1993	1994	1995	Overall real price change (1993-95)
Outpatient				
Doctors fees	166	356	484	+146%
	(100)	(196)	(246)	
Drugs	193	400	526	+130%
	(100)	(190)	(230)	
Tests	74	119	242	+176%
	(100)	(147)	(276)	
Inpatient				
Doctors fees	3,395	4,124	4,098	+2%
	(100)	(111)	(102)	
Drugs	1,710	3,509	3,825	+89%
	(100)	(188)	(189)	
Tests	711	1,301	1,381	+64%
	(100)	(167)	(164)	
Daily bed cost	452	697	680	+27%
	(100)	(141)	(127)	
GDP deflator (1990=100)	133.6	146.1	*158.4**	*+19%*

Source: IPS insurance survey data.
Note: Prices are in rupees, and are the average price of each item per insured episode. Tests refers to laboratory tests. Daily bed cost is the mean cost per day of the combined hospital admission charges and daily bed charges for each episode. GDP deflator is the implied Central Bank GDP deflator. The figures given in parentheses are the real prices for each service relative to that in 1993, having adjusted for inflation as measured by the GDP deflator. * Provisional figures.

Employer schemes

Since at least the beginning of the twentieth century, formal sector firms in Sri Lanka have provided schemes to assist their employees when ill. However, there is little information available on the extent of such provision before 1944, when the Social Services Commission carried out a questionnaire survey of employers outside the estates to determine the social services provided by them (Commission on Social Services, 1947).

The Commission sent questionnaires to 462 employers, and received responses from one third. These employers between them employed 38,455 persons, at a time when the Commission estimated that approximately 800,000 people were contractually employed. Several firms either provided direct medical care or paid for medical expenses. Table 2.19 summarizes by type of company the findings reported by the Commission. Approximately half the companies responding provided free medical attention to their employees, although often this was restricted to certain grades, typically managerial and supervisory staff. Total medical expenditures by all 462 firms surveyed may have been in the range of Rs. 100,000 to 400,000. This was a significant amount at a time, when total health ministry recurrent expenditures were less than Rs. 4 million. So while only a very small proportion of the population benefited from these schemes, the funds mobilized per capita were much greater than that mobilized through general revenues to provide health services for the rest of the population.

Table 2.19: Provision of medical schemes by employers surveyed in 1944

Type of firm	*Number of employees*	*Number of firms*	*Number of firms paying for free medical attention*	
			Full coverage	*Partial coverage*
Commerce and Business	16,304	64	24 (38%)	7 (11%)
Manufacture	6,808	26	11 (42%)	2 (8%)
Engineering	8,994	14	7 (50%)	3 (21%)
Other employers	NA	8	NA	NA

Source: (Commission on Social Services, 1947)

The Commission concluded that while many employers, especially the larger commercial firms, did provide benefits for their employee, the extent was limited, and that "unless Government proposes to take over a large section of private industry, or trade union activity can do something to equate conditions [with government sector jobs] . . . [mandated] social services are necessary to create uniform conditions of employment." Given the small size of the formal sector at the time, it was clear that without government intervention, employer-provided medical schemes were not going to cover either a large proportion of the population, or even a significant number of the formally employed. The Commission did not recommend that the government should take any action with respect to encouraging further expansion of this type of employer coverage.

With slow employment growth during the 1960s and 1970s, there was little expansion in employer schemes. Abel-Smith (1980) estimated that only 40,000 people were covered by these employer-run schemes in 1980, and that total expenditures by these schemes were approximately Rs. 16 millions. The schemes remained restricted to the large commercial and financial firms. Abel-Smith noted that the employers with these types of schemes tended to be those with a low proportion of manual employees, and with a high number of clerical and administrative staff. The largest schemes were in the banking sector, where trade unions had succeeded in enshrining medical schemes in the collective agreements covering employees. The scheme run by Peoples Bank was typical of those run by the larger banks. It was available to all employees and their dependents after one years service. The major cost was borne by the employer, with the employees contributing on a sliding scale according to salary level. The scheme reimbursed all reasonable health care expenses (including general practitioner services and drugs, dentistry, spectacles and hearing aids, as well as specialist and nursing home charges) up to annual monetary limits for each type of expense. Many of the benefits provided by schemes such as these could have been provided through a group insurance policy, but companies felt that it was cheaper for them to manage it themselves or that the benefits were better than those available from the insurance companies.

Expansion in the economy and formal sector employment during the 1980s led to an increase in these employer schemes. At the same time, some employers may have replaced their own schemes with contracts with the insurance companies. Madugalle (1994) carried out a survey of some of the existing employer-run schemes in 1994. The bank schemes continue to be the largest schemes. Table 2.19 gives details for several schemes.

Table 2.20: Details of some employer schemes

Company	*Main features of scheme*	*Number of employees*	*Total expenditures in 1993*	*Average cost per employee*
Banks				
Central Bank of Sri Lanka	Non-contributory covering all non-casual employees, retirees and dependents for both inpatient and outpatient care.	2,300	Rs. 35 million (1991)	Rs. 15,000
Bank of Ceylon	Contributory scheme covering all non-casual employees and family for both inpatient and outpatient care.	10,250	Rs. 35 million	Rs. 3,400
People's Bank	Contributory scheme covering all employees for both inpatient and outpatient care.	10,700	Rs. 42 million	Rs. 3,900
Commercial Bank	Non-contributory scheme covering all employees for both inpatient and outpatient care, with some exclusions.	1,801	Rs. 5.2 million (1992)	Rs. 2,900
Manufacturers				
Bata Shoe Company	On-site outpatient care for factory employees, and hospitalization insurance for managers.	1,200	Rs. 1.1 million	Rs. 916
Conglomerates				
John Keels Holding Ltd.	Outpatient care provided for non-executive staff and contributory scheme for hospitalization.	7,600	Rs. 1.4 million	Rs. 184

Source: Madugalle (1994).
Note: Commercial Bank, Bata Shoe Company and John Keels are private companies. The others are state-owned. Total expenditures reported for each scheme are those incurred by the employer.

The costs of the schemes vary greatly. Banks have the most generous benefits, and state companies tend to incur higher expenditures than private ones. For example, the Central Bank scheme costs approximately Rs. 15,000 per employee, although this includes expenses for dependents. This is 50 times greater than per capita government health expenditures, and 20 times the average private health insurance premium. Madugalle mentions that many employer schemes admit to receiving inflated bills from private providers for reimbursement, but their ability to control was limited. None reported any attempt to control prices other than through capping the total amounts reimbursed per employee and some limited deductibles. In the case of the Central Bank, the high level of expenditures may be tolerated, because employees regard the generous reimbursements as part compensation for low salaries.

Social insurance

Sri Lanka has never used social insurance to finance its health services, although this option has been given official consideration on several occasions. Social insurance is of interest only as a potential option in the past and in the future. However, brief mention shall be made of the medical wants system used to provide health services to the plantation workforce from the late 19th century, as it can be regarded as a form of social insurance, even though it differs superficially from the traditional Bismarkian model. The medical wants system was characterized by several important features, which justify classifying it as a form of social insurance. These features include the statutory tax imposed on employers, the restriction of benefits to a particular section of the workforce and its dependents, and the general linking of services to a legally mandated set of employee benefits.

Medical Wants System

During the seventeenth and early-eighteenth centuries, the government did not recognize any general right on the part of citizens to have access to modern health care services. Health services were developed on a limited scale in the major urban areas to serve the interests of the European resident population, the military and other state officials. The import of South Indian immigrant labor to work on the newly established coffee plantations from 1825 onwards had a profound influence on the development of health services. Partly because of their importance to the new plantation economy and partly because of concern on part of the Indian Government for the welfare of its citizens, the Ceylon Government introduced legislation to set increasing social welfare standards for immigrant labor. In addition, because of the problems associated with entry of epidemic diseases from South India with the constant traffic in immigrant labor, the authorities set up special institutions known as immigrant hospitals along the routes from the northern sea ports to the central plantation districts. By 1899, when the northern land route for immigrant labor was closed, several hospitals had been established in what were then remote locations in the North Central and Northern Provinces (Uragoda, 1987).

In funding these new medical services, there were bitter arguments as whether the planters or the government should be responsible for the treatment of sick laborers. However, a precedent had been set earlier, when employers had accepted partial responsibility for providing housing (Browne, 1943), and in 1880 ‘An ordinance to provide for the medical wants of immigrant laborers in certain planting districts’ (No. 17 of 1880) was introduced. This provided for the government to undertake provision of medical care to these workers, but with the cost to be borne by the planters. The estates were grouped into planting districts, and each district was provided with a district hospital under a district medical officer.[1] Estates were entitled to the services of the district medical officers, and to hospital treatment for all laborers requiring it, as well as a free supply of prescribed drugs up to the value of 50 cents per laborer per annum for the estate hospital or dispensary, and to the supply at cost price of other prescribed drugs.

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[1] The planting districts did not conform to the administrative districts, but the nomenclature of district hospitals and district medical officers has survived in the health ministry (Uragoda, 1987).

To pay for these new services, a duty was imposed on all exports of cocoa, rubber and tea, which in the 1940s was at the rate of 15 cents, 75 cents and 15 cents per 100 lb. respectively. These duties were used to pay for the expenditures of the Medical Wants Committee, which was the administrative entity set up to administer the system. The government made a small contribution of 15 per cent of the expenditure of the Medical Wants Committee in addition to the funds raised by the duties.

Where estates had made provision for directly supplying services according to strict standards imposed by the Medical Wants Committee, they were entitled for a rebate from the duties. This system proved quite effective in stimulating the provision of health services to the estate population, and by 1945 there were 97 estate hospitals and 722 estate dispensaries serving 1,439 estates, which were in fact half of the all the estates covered by the medical wants ordinance. Because of the requirements imposed by the Medical Wants Committee, in some respects the standards of some of these facilities were sometimes higher than in the Colombo General Hospital, and in general were higher than the health facilities made available to the bulk of the population (Commission on Social Services, 1947). The amounts paid out as rebates to the estates were in fact quite substantial.

As a method of mobilizing resources, the imposition of medical wants duties was cheap to administer, as it merely supplemented the existing export duty system, and it would have been impossible for the plantation owners to circumvent. Since the global market for tea, rubber and coconut was and remains highly competitive, the plantations were essentially price takers, and the incidence of the medical wants duties fell solely on the producers. The government had also imposed minimum wage requirements on the estates, so it was not possible for the employers to pass on the burden of the duties onto the workers themselves, and as a result the incidence of these duties and obligations were borne almost exclusively by the estate owners.

In terms of the impact on the welfare of the covered population, the system seems to have been effective. Mortality data indicate that the estate population enjoyed a health status not worse than the population as a whole, and probably marginally better. The infant mortality rate for the estate population in the 1940s was in fact slightly lower than for the population as a whole. However, once public health services to the rest of the population expanded in the 1950s, the estates population lost their previous advantage in health status, and dropped behind the rest of the population.

3. EVALUATION OF SPECIFIC RESOURCE MOBILIZATION METHODS

Public taxation

Contribution to resource mobilization

Public taxation has been a major method of resource mobilization in Sri Lanka's health sector, particularly for hospital services, for most of the past 2,300 years, and clearly the dominant one in the twentieth century. This attests to the sustainability and contribution of public taxation as a long-term mechanism of resource mobilization. However, it is necessary to examine the its limits, potential and determinants in the modern Sri Lankan health care system in order to assess its future role and relevance to other countries.

Table 3.1 and Figures 3.1 and 3.2 show the evolution of public taxation based health expenditures in Sri Lanka this century. In the early part of the century, the colonial administration did not recognize any general obligation to provide health services to the bulk of the population. Public expenditures were low, and the majority of the rural population were left to depend on their own resources or private charity. The colonial state was closer in outlook to the typical late-nineteenth century European state, than its precursors in pre-colonial Sri Lanka. The emphasis of public policy was on maintaining fiscal rectitude and performing only the minimum of functions. During the Depression in the 1930s, public tax revenue fell, and with it public health spending. When the economy recovered in the 1940s, tax revenues increased and so did public spending. From then on, Sri Lanka has sustained a higher level of public spending above the level of Rs. 150 per capita.[1] This sustained increase in spending represents an increase in the share of national income, and occurred despite little change in the share of national income being collected through general revenues. It was related to a change in the State's view of its role in health financing, and was strongly influenced by two events during the depression of the 1930s. The first was the introduction of universal suffrage in 1931, and the second was the impact of the malaria epidemic in 1934-35, which showed the inadequacy of existing public, private and charitable arrangements for meeting the demand for health services.

Although public spending as a proportion of GDP subsequently fell, real expenditure levels were maintained because of GDP growth. When rapid economic growth commenced in the late 1970s, public tax revenues as a share of GDP did not significantly increase, but recurrent public health expenditures did, and there has been sustained increases in the real level of expenditures.

Cross-sectional analyses of global health expenditures and time-series analyses of OECD health expenditures show that public health expenditures are income elastic ((Newhouse,), (Gerdtham, Segard, Anderson, and Jonsson, 1992). In the case of Sri Lanka, Anand and Ravallion (1993) concluded that taxation-based health expenditures were not income elastic, and therefore that income growth would not necessarily automatically lead to increased general revenues being allocated to the health sector. Using IPS data it is possible to do an analysis of a more extensive and more accurate time series. This reveals that the relationship between income levels and recurrent public health expenditures in Sri Lanka was not constant during the time period 1943-

[1] 1990 constant rupees.

1994. In fact, the income elasticity of government health spending fluctuates considerably. During the period 1943-1955, when there is strong income growth, health spending is highly income elastic, while during 1956-1976 spending was negatively income elastic. Then during the period after 1976, when there has been a long period of income growth in Sri Lanka, the income elasticity of public health spending has been positive and approximately equal to one. Analysis also shows that in years in which income per capita fell substantially, health spending was negatively elastic, suggesting that in these years governments attempted to preserve real spending levels (or that were unable to adjust spending downwards fast enough).

Health expenditures in Sri Lanka have always been low in absolute and comparative international terms, and they were too small to have been responsible for the major fiscal imbalances in the Sri Lankan economy for much of the post-war period. The analysis of income elasticity of public health spending strongly indicates that the major constraint to increased public spending has been low income growth. When there is strong income growth in the Sri Lankan economy, increased allocation of general revenues for health can be expected. This is also consistent with two thousand years of previous experience in Sri Lanka, which suggests that state support for government hospitals was greatest at times of general economic prosperity.

It can be concluded that the existence of a mechanism to reflect people's wishes resulted in a permanent shift in the attitude of the State, and thus increased allocations of public revenues to health. Once this happened, probably the same political mechanism acted to protect health expenditures, even when national income was stagnant. In the long-run, the major constraint to increased mobilization by this mechanism has not been excessively high public health spending, but low income growth in the economy. When market-orientated policies produced higher growth from the late 1970s onwards, public taxation yielded increased resources in real terms. While public health spending is unlikely to have been a constraint to economic development, market-led economic growth is necessary to increase levels of taxation based health spending.

Equity

Equity can be evaluated from two perspectives: (i) equity in terms of the benefit of services financed, and (ii) equity in terms of the burden of financing (van Doorslaer, Wagstaff, and Rutten, 1993). The two aspects will considered below.

Equity in benefits

Publicly-financed health services were generally located in urban centers before the late 1930s, so it is reasonable to conclude that the benefits of public spending were highly inequitable and went mostly to the urban population, which was also generally richer than the rural population. The country-wide expansion of health services during 1931-60 would have reduced this inequity by making services available to most of the poor rural population.

Tables 3.1, and 3.2 show the estimated incidence of public health services later in 1979 and 1992, while Table 3.3 gives for illustration the relative distribution of public health spending in some other developing countries. As evident, the incidence of health spending in Sri Lanka generally favors the poor. The distribution of the benefits of inpatient spending has been relatively equally distributed, but the distribution of outpatient services has tended to be much better targeted, and in each case the distribution has become more favorable to the poor over time. The poorest quintiles receive a greater share of the benefits of taxation funded health spending than do the richest quintiles. This pro-poor distribution has in fact increased over the past two decades.

Table 3.1: Incidence of public health spending in Sri Lanka in 1979

Household quintiles	*Ayurvedic (% of total)*	*Western (% of total)*	*Total (% of total spending)*
1st	1	28	30
2nd	1	21	22
3rd	0	18	18
4th	1	18	18
5th	0	9	9

Source: Authors' estimates derived from (Alailima and Mohideen, 1983)

Table 3.2: Incidence of public health spending in Sri Lanka in 1992

Household quintiles	*Outpatient services (% of total)*	*Inpatient services (% of total)*	*Combined (% of total)*
1	28	22	24
2	23	20	23
3	20	19	18
4	18	21	19
5	10	20	15

Source: Authors' estimates
Notes: Estimated from results of 1991 World Bank-sponsored household health expenditure survey.

Table 3.3: The incidence of public health spending in selected countries

		Share of subsidy (%)	
		Poorest quintile	*Richest quintile*
Sri Lanka	1979	30	9
Brazil	1985	17	42
Jamaica	1989	30	9
Indonesia	1989	12	29
Malaysia	1989	29	11
Vietnam	1992	12	29
Kenya	1993	14	24
Ghana	1992	11	34

Source: Authors estimates based on (Alailima and Mohideen, 1983), Demery et al (1995), Grosh (1994) and authors' estimates.

Equity in financing

More than 95% of all government revenues are collected by central government. They are derived from three main sources: (i) direct taxes on individuals and companies, (ii) indirect taxes consisting of sales and excise taxes and trade taxes, and (iii) non-tax revenues consisting of income from state corporations, lotteries, etc. The broad structure of government tax revenues has shown considerable stability since the 1930s, when direct taxes on income were first introduced. The amount of resources mobilized through the tax system as a percentage of GDP has gradually risen from approximately 15% of GDP in the 1930s to 25% of GDP in the 1990s.

Direct taxes are considered to be progressive, in that richer people pay a greater proportion of their incomes in taxes than poorer people. While this has always been so in Sri Lanka (Jennings, 1951), direct taxes have never contributed a large share of government revenues. The authors of this report were unable to locate any study on the incidence of direct taxes in recent years, and so no empirical assessment is attempted here. The only significant increase in the contribution of direct taxes took place in the early 1930s, when the introduction of universal suffrage led to the introduction of income taxes. The incidence of public taxation is thus closely related to the incidence of indirect taxes, which have always accounted for the bulk of general revenues.

Indirect taxes consist in the main of two types: (i) trade taxes, which are import and export duties, and (ii) sales taxes. Historically export duties were the principle source of government revenue, and their incidence was seen to fall directly on plantation owners, as they were unable to pass on the duties to their customers, operating as they were in a global commodity market in which they were price takers. Since the plantations were owned by foreign and domestic capital, these taxes could be regarded as being progressive at the margin (Indraratne, 1992). However, in the long-run it is debatable how progressive these taxes were, as they acted to reduce foreign investment in the estate sector and thus reduced growth of estate employment and national exports. To the extent that lower employment growth and reduced economic growth, because of foreign exchange scarcities, hurt the poor the most, it is reasonable to conclude that the ultimate incidence of these export duties bore most heavily on the poor (Moore, 1990).

Trade liberalization from the late 1970s, and the increased acceptance by policy makers of the importance of export-led growth and the virtual bankruptcy of the nationalized plantation sector from the late 1980s have led to a shift in the composition of indirect taxation towards domestic taxes on goods and services. This has led to an increase in the regressiveness of indirect taxes (Indraratne, 1992). Table 3.1 gives estimates of the burden of indirect taxation in 1979 and 1986 in comparison with some OECD countries with similar income distributions to Sri Lanka. Indirect taxation in Sri Lanka is regressive in that the ratio of indirect tax to income decreases with increasing income. Nevertheless, wealthier households do pay more indirect taxes overall. In comparison to developed countries, indirect taxation in Sri Lanka is not markedly more regressive (indirect taxation in Italy is more regressive), but overall taxation is much more regressive. This is not because of less regressive indirect taxation, but primarily because of greater reliance on more progressive direct taxes in the developed countries.[1]

The redistributive impact of publicly-funded health services

One of the explicit objectives for public financing of health services in most countries is a redistributive or equity one (Hammer and Berman, 1995). Health spending is expected to redistribute resources to the poor, or help improve their welfare in absolute terms. But many countries fail to achieve this, and public subsidies benefit mainly the rich or urban populations (van der Gaag, 1995).

Compared with other countries, Sri Lanka's government health services are very successful in reaching the poor, and they achieve a net redistribution of resources. Yet this raises an important

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[1] Indirect taxes as a share of total tax revenues available for health care were Ireland 65%, Italy 46%, The Netherlands 68%, Spain 46% and UK 40% (van Doorslaer, Wagstaff, and Rutten, 1993), and Sri Lanka in 1987 - 79% (Indraratne, 1992).

question. How can this happen in a country where the tax system is regressive, there is no public policy of explicit targeting or means testing access to free health services, and there is a deep social commitment to universal (or equal) provision of public health services?

The explanation is that Sri Lanka conforms to the theoretical model proposed by Besley and Coate (See Box 3.1). Most Sri Lankans have access to two sources of care: public and private. In the public sector, **technical quality** is reasonable in that it is effective in improving health status, but quality is poor in various consumer-perceived respects, such as overcrowding, courtesy of staff, general standard of amenities, and waiting times. **Consumer quality** has different value to individuals of different incomes, and richer people tend to value it more. The results of the IPS/Harvard opinion poll confirm this, in that while most people were happy with MOH services, a significant number of rich people were dissatisfied. The rich therefore pay in the private sector to obtain the quality level they are happiest with, leaving public health subsidies to be largely consumed by the poor. However, because public health services are paid for through the general taxes and not through user fees, they cannot avoid paying for the public system. Thus, while the tax system is regressive, the net impact is to achieve redistribution.

Box 3.1: Redistribution of income through universal public provision

Under certain circumstances universal provision schemes can redistribute from rich to poor, even if they are financed by a head tax (Besley and Coate, 1991). The critical conditions are that the public provision scheme distribute a good which can be provided by both the public and private sectors, and for which individuals demand at most one unit while caring about its quality, that individuals have a choice between the two sectors, and that quality in the public sector is not set too high. Medical services satisfy these requirements, in that it is generally not possible for an individual to receive health care from two different sources simultaneously. On the other hand, not all units of medical service are identical, as they can differ in quality. If individuals can consume at most only one unit of a good, then doing so in the public sector restricts the individual to consuming the good at the publicly-set quality level. However, some may prefer to consume the good at a higher quality level in the private sector, if it is available, even if this requires payment. If quality is a normal good (i.e.: demand for quality rises with income) and the quality level in the public sector is not set "too high", then the households that opt out of the public sector will be those with higher incomes, leaving the benefits of public provision to those at lower incomes.

Besley and Coate posit a simple two-good general equilibrium model to describe this situation. In the model, high income individuals obtain less utility from any given level of quality than poorer individuals. Public provision is paid for by a head tax. The model implies that if universal provision occurs at a quality level that is so high that it induces both groups to consume public services, then both the poor and the rich will be worse off. This happens because of the inherent deadweight losses in the provision of goods rather than cash. Everyone would always be better off with a cash transfer equal to the cost of providing the high quality public service, as they can then choose the quality level that suits them best.

It is better to set quality in the public sector lower, so that only the poor are attracted to use public services, but not so low that not even they want to consume. Such quality levels can be termed *separating*. There are a range of such separating quality levels. At the lowest separating levels, quality is so low that not even the poor value it and they are worse off than without such a scheme as they also have to pay taxes to pay for it; at these levels the rich are also worse off because they pay taxes for a service they don't consume. At higher separating levels of quality, the poor are no longer worse off as quality is at a level they would have chosen anyway, if given a cash transfer equal to the cost of providing this level; however, the utility of the rich continues to decrease as they pay more taxes to pay for the higher quality. Finally, at the highest quality levels, the rich are attracted to use public services, resulting in a negative redistributive impact. At these levels, the poor may start to be worse off, as the value to them of the additional quality may be less than the additional taxes necessitated.

What the model implies is that systems of universal provision can redistribute from the rich to the poor, but that there is always some deadweight loss, as some people are always forced to consume levels of quality they would not have chosen. Whether this is an efficient way of redistributing income depends crucially on the efficiency of other policies, such as direct targeting. Any system of direct targeting requires on accurate measurement of incomes, but in most developing countries, the cost of doing so is prohibitive. The cost of measurement is itself an inefficiency which is likely to be greater than the deadweight losses described. The other alternatives are lump-sum transfers or commodity subsidies. But there are both theoretical and practical reasons to doubt the redistributive impact of such methods. If however, it becomes possible to measure incomes cheaply, as is the case in more advanced countries, then it will be better to charge income taxes, and achieve redistribution that way.

Besley and Coate's model has three important implications other than its ability to describe the Sri Lankan situation. First, in the medium term at certain levels of consumer quality in the public sector, improvements will lead to decreased redistribution, if more rich people are induced to consume public services. So while a sufficient level of public spending is desirable, higher levels of public spending in order to improve such aspects as overcrowding, waiting times, general amenities, etc., may have a negative impact on income redistribution. Second, if individual incomes cannot be measured accurately, as is the case in Sri Lanka, then indirect taxes and a universal provision system of intermediate quality may well be the most socially efficient way of achieving redistribution. In the long term with economic development, if it becomes easier to measure incomes, then it will be more effective to levy higher income taxes, and use the taxation system as a method of redistribution. Given the difficulties of measuring income, the current policy framework which has not attempted to means test access to free health services is more socially efficient. When it becomes possible to measure income directly, then the next step ought not to be raise revenues through health service user fees, but to use higher income taxes to mobilize resources. The third implication relates to the potential role of social insurance systems in Sri Lanka. The major attraction of this is that it offers the potential for publicly-funded individuals to choose the providers they use.[1] However, any insurance system, which puts the same amount of purchasing power into the hands of the rich as the poor, will tend to achieve less redistribution than under the current system, since rich people will be more likely to obtain the benefits of the implicit tax involved in insurance premiums. A reduction in the effectiveness of public services to achieve income redistribution will be of major concern to equity-minded policy makers as long as the tax system remains regressive.

[1] Raising revenues would not have been a major advantage in Sri Lanka to date. Levying social insurance premiums in a progressive manner would face the same difficulties that plague the existing system of taxes which are largely to do with inability to measure incomes and a narrow tax base.

Allocational efficiency

There were insufficient data and time to properly assess the impact on allocational efficiency of public taxation based health spending. Instead, an incomplete assessment is made by examining one crude proxy measure of allocational efficiency (Kutzin, 1995).

Hospital versus non-hospital based care

It is possible to obtain an approximate estimate of the proportion of general revenues being allocated to hospital care by assuming that the 'patient care services' line item[1] in the health ministry budget is used to pay for hospitals. This indicates that public funds in Sri Lanka are mostly allocated to hospital care, and that the proportion is, and has been for a long time, significantly higher than in most other developing countries (Tables 3.4 and 3.5). Estimates by various authors also indicate that most (>75%) hospital expenditures have also been used to pay for inpatient care, as opposed to outpatient care (Abel-Smith, 1967; Simeonov, 1975)

Table 3.4: Proportion of MOH expenditures devoted to hospitals

Year	*Recurrent expenditures*	*Capital expenditures*	*Total expenditures*
1958	75%	NA	NA
1973	NA	NA	65%
1986	77%	59%	75%
1991	78%	86%	80%
1994	81%	58%	77%

Note: These numbers should be regarded as indicative estimates, and because of the different sources used, may not be strictly comparable.
Source: Owing to lack of time, secondary sources have been used instead of direct examination of MOH records, including Abel-Smith (1967), Simeonov (1975), MOH Annual Health Bulletin 1992, (World Bank, 1995), (World Bank, 1996).

Both international and Sri Lankan observers have frequently recommended to reduce this proportion or to reallocate money towards non-hospital based care.[2] These have been repeatedly incorporated into official policy and budgetary plans, but they have never been implemented as noted by Simeonov (1975). From the perspective of the cost-effectiveness approach to resource allocation, this persistent pattern of high hospital spending is inefficient, because typically the most cost-effective types of treatment are best delivered or can only be delivered on an outpatient basis (World Bank, 1993). However, the determination of hospital care as cost-ineffective by international experts has not always proved correct.

Two examples from the first World Bank mission to Sri Lanka in 1951 illustrate this. Other than a general recommendation to increase the allocation of resources to outpatient services, it determined that Sri Lankan women were making excessive use of public hospitals for confinement, and that increased diagnosis of TB would lead to uncontrollable demand for inpatient beds. It accordingly recommended the 'cheaper' approaches of encouraging delivery at home under the supervision of nurses and midwives,[3] and the clinic-supervised home treatment of TB cases (International Bank

1 In previous years equivalent to the 'medical services' line item.

2 The World Bank has been remarkably consistent in that successive missions to Sri Lanka from the very first Bank mission to Sri Lanka in 1951 have made recommendations along these lines (International Bank for Reconstruction and Development, 1953) (World Bank, 1984).

3 The mission also made the thoroughly modern recommendation of user fees for pregnant women in order to encourage them to utilize hospitals in a more allocatively efficient manner.

for Reconstruction and Development, 1953). The health ministry did not implement any of these recommendations. Later in the 1970s, it emerged that the ministry's effort to reduce maternal mortality was faltering because of deaths of low-risk mothers who were delivering at home or under the sole supervision of midwives. This led to a new policy objective of delivering all births in institutions. This policy has worked, with more than 94% of all births now being delivered in institutions (Department of Census and Statistics, 1995). In the case of TB, research in the 1990s established that hospital-based chemotherapy of TB patients for poor rural populations may actually be one of the most cost-effective medical interventions known, largely because it ensures high patient compliance (World Bank, 1993).

Table 3.5: Proportion of government spending absorbed by hospitals in Asian countries

Country	*Percentage (%)*
Hong Kong	95
Sri Lanka	75
China	67
Indonesia	59
Malaysia	59
Philippines	58
Thailand	58
Bangladesh	56
Nepal	50
Papua New Guinea	43
India	32
Myanmar	33

Note: Countries are ranked according to hospital proportion. Figures are for the early 1980s, except India. Hong Kong was not included by Griffin, but it is reported to devote more than 95% of its public budget to hospitals.
Source: Griffin (1992), except Sri Lanka (from previous table), India (World Bank, 1995) and Hong Kong (Chu, 1994).

Nevertheless, the Sri Lankan experience does raise serious doubts as to the validity of the cost-effectiveness approach in evaluating the allocational efficiency of the use of public health funds. In 1947, the Commission on Social Services estimated that of those in hospital, only 60% actually were in need of inpatient treatment (Paragraph 102). The rest consisted of those (i) who could have been treated on an outpatient basis, but were unable to work and thus maintain themselves, (ii) incurable cases, (iii) the aged and crippled, and (iv) the simply debilitated and ill-nourished unemployed.[1] Later it noted (Paragraph 106) that many of the cases presenting at government medical facilities really didn't need medical attention, but instead financial assistance or accommodation to tide them through their illness episode (Commission on Social Services, 1947). What is clear from this and many other reports from that time, is that the rising social demand for hospital services, including bed, food and nursing care, was not for reasons of obtaining cost-effective medical treatment, but instead reflected the lack of insurance against the catastrophic costs, both treatment and subsistence-related, engendered by illness in a mostly rural subsistence population. While households were able to pay for the expenses of ayurvedic practitioners for minor illnesses, they were unable to cope with the economic consequences of more serious and debilitating illnesses. The 1934-35 malaria epidemic had already demonstrated that private charity was unable to meet the demand for hospital care and relief, and this had prompted an earlier

[1] The Commission was probably too benevolent to describe the latter two categories in the manner some contemporary observers might, namely as those with few remaining DALYs, and malingerers.

official recommendation that the government should take responsibility for running hospitals. Since in the 1930s and 1940s, modern medical care was not particularly efficacious, much of the function of government hospital spending was not to improve health (or increase DALYs), but in effect to provide insurance for the population.

Per capita incomes have risen considerably since then. Fewer Sri Lankans today live on the edge of subsistence. Yet although the health benefits of much hospital treatment would have significantly improved, the cost of such care remains expensive for most households. So the continued social demand for hospitals reflects a need for insurance provision, which remains unmet by the commercial insurance market.[1] The concentration of government funding on hospital care may serve to improve social welfare more than spending it on more cost-effective ambulatory care, which many Sri Lankans already pay privately for. If this is the case, then the emphasis on inpatient care in the government budget may well be allocatively efficient.[2]

Technical efficiency

Availability of data and study resources do not allow a proper assessment of technical efficiency of taxation funded health services in Sri Lanka. Instead some indicators, which have been identified as reasonable proxies (Kutzin, 1995), are assessed.

Because of the emphasis on hospital services in the public sector, efficiency in the hospital system is reflective of overall system efficiency. From an international perspective, the Sri Lankan MOH system is highly efficient in its use of physical and human resources, whichever set of indicators are used. (Figure 3.3)compares Sri Lankan MOH hospital performance in 1991 with other countries, using a modified version of the technique of Pabon Lasso (1986). 'Sri Lanka I' represents the mean performance of the main teaching hospitals, 'Sri Lanka III' represents the average performance of district and base hospitals, while 'Sri Lanka mean' is the average for all MOH facilities.[3] In Lasso's classification, countries such as Sri Lanka falling into quadrant III have hospitals that are performing relatively well, and with relatively low proportions of unused beds. In comparison with other countries in quadrant III, Sri Lankan hospitals have much higher rates of throughput and an average ALOS much less than virtually all countries for which there are data.

This high throughput is not associated with higher levels of staffing intensity. Figure 3.4 compares the overall staffing ratios in the Sri Lankan system in 1991 with data for public hospitals in other developing countries in the late 1980s taken from (Barnum and Kutzin, 1993). The Sri

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1. According to the World Bank (1993: p.5), taxpayers in countries want to see maximum health gain for the public money spent on health services. Much of the evidence presented in this report, including the opinion poll findings, suggests that Sri Lankans have additional concerns. Since the World Bank did not indicate the evidence for its assertion, the authors are not able to assess whether Sri Lankans are just different to other people. However, it is a moot point, since in a democracy such as Sri Lanka's it is difficult to justify giving higher priority to the concerns of taxpayers over those of all citizens.
2. In their regression analysis of cross-national health status in 1990, Govindaraj and Rannan-Eliya (1994) examined which countries do best in terms of their positive deviation from expected health status controlling for income level. In Asia the best four performers overall were in descending order Japan, Sri Lanka, Hong Kong and China. This suggests either that the latter three achieve their exceptional health indicators despite seriously mistaken government allocation patterns, or that these same allocation patterns are inextricably linked to their superior health achievements.
3. Data for figure taken from MOH 1991 Annual Health Bulletin.

Lanka numbers are based on aggregate system-wide numbers and therefore overestimate the staffing per bed within hospital facilities, as not all staff are employed in hospitals. As can be seen, Sri Lanka's tax-funded hospital system uses staff more intensively than other countries.

The above discussion relates to 1991 but it is likely that similar levels of efficiency have characterized the tax-funded health system since the 1960s, since overall staffing ratios and facility utilization rates have changed little during this time. The only notable change was a moderate reduction in hospital occupancy rates due to an approximately one third reduction in average ALOS (MOH Annual Health Bulletins).

It would be useful to examine current unit costs for tax-funded health services. Reports from the 1970s and 1980s indicate that unit costs of outpatient and inpatient visits were rather low in comparison with other countries (Simeonov, 1975), (Griffin, 1992).[1] There is one more recent World Bank funded cost study of MOH facilities which was carried out in 1991 (Griffin, Levine, and Kelly Eakin, 1994), but the reported results from this are so ludicrous that they cannot be considered credible.[2]

In general, tax-funded health services in Sri Lanka have very low unit costs, both in absolute terms and in international comparison. The reason appears to be high levels of utilization coupled with intensive use of available staff and beds. This might be considered somewhat surprising as one of the inherent weaknesses of publicly-funded health services is the tendency for there to be major disparities between demand and the pattern of supply. In Sri Lanka, this did not occur, as the expansion of the public hospital system was not supply-driven, but demand-driven by continuous over-crowding of public facilities and by the existence of a political mechanism which allowed consumer demand to act as input into the central planning process.

Quality

While there are many areas of inadequate service which are well known to local observers, tax-funded health services in Sri Lanka are generally of high technical quality relative to those found in most other developing countries. The MOH is also aware of the need to maintain and improve quality, and was one of the first developing country health ministries to develop its own quality assurance programs. Available data do not permit assessment of their quality relative to Sri Lankan private hospitals.

It is not possible to directly assess the actual technical quality of clinical treatment provided in MOH facilities owing to lack of data. However, one indication of the quality of curative treatment provided can be judged from the following. In 1991, public hospitals reported 121, 439 admissions for malaria, of which 93 resulted in death. These numbers are unreliable due to incomplete reporting of notifiable diseases, and so the implied case fatality rate of less than 0.1% is likely to an overestimate. This case fatality rate is highly commendable, and indicates that public

[1] Converting into 1990 constant rupees, the following unit costs are reported in Simeonov (1975): acute inpatient case Rs. 250-1,000, hospital delivery Rs. 540-1,600, and outpatient visit Rs. 4-50 (US$1 = Rs. 40 in 1990).

[2] This study reports unit costs for a sample of MOH facilities in 1991 of Rs. 450 per available bed-day, and Rs. 1,500 per outpatient at MOH hospitals. In 1991, MOH provided over 15 million available bed-days, plus more than 22 million outpatient visits at its hospital facilities. At the calculated level of unit costs, this volume of provision would have cost approximately Rs. 40 billion. Total government health expenditures in 1991 were only Rs. 5.2 billion, so the reported unit cost figures must be incorrect by at least one order of magnitude.

health facilities are relatively effective at providing the correct treatment in an appropriate manner, once patients present themselves.

Assessment of quality as perceived by consumers can be judged by direct questioning, and by observing patient behavior. The IPS/Harvard opinion poll indicates that public satisfaction with government services is high, and especially amongst the poorest. Increasing rates of utilization of public health facilities after the 1930s provides strong evidence that the bulk of the Sri Lankan population both appreciated the services provided as well preferred them to the privately funded alternative (typically ayurvedic providers). The subsequent shift of patients for outpatient services to private western providers, which has become significant since the 1980s, indicates that modern private services are now considered of better quality or convenience than MOH services. Those who can pay will do so for what they consider better quality. This is supported by several small surveys carried out in recent years, which indicate that inconvenience and lack of courtesy by public providers are the major reasons causing patients to switch.

Cost containment

Since unit costs in the public health system have historically been so low, cost containment does not seem to be major or relevant issue. It is possible to obtain some idea of how unit costs might have changed over time by calculating the ratio of services delivered to cost over time. Figure 3.5 attempts to do this using a composite output index whereby one inpatient admission is equivalent to 20 outpatient visits, and by using the total government health budget as a proxy of service costs. As can be seen, unit costs have fluctuated over time, but have remained nevertheless low in the range of 1990 US$10 - 20 per admission equivalent, but may then have increased in the 1980s to reach a level of about US$25 per admission equivalent. When this is placed in the context of changes in per capita income, it is apparent that during the 1960s and 1970s when income levels increased only moderately, that the health system maintained unit cost levels. This would have been partly through an increase in productivity, but may have also involved reducing the real price of inputs such as labor. Although costs have since risen, they have only done so in parallel with changes in income levels, which could be explained by increases in the real wages paid to health personnel and perhaps by an increase in the quality of services provided. Although these conclusions are highly speculative, they do suggest that the tax-funded health system may have been effective in controlling unit costs, and also perhaps the prices of key inputs.

Impact on health status and fertility

Following the expansion of publicly-funded health services in the 1940s, Sri Lanka experienced the most dramatic advance in health and fertility reduction ever recorded. Such improvements in health status were not due solely or mostly to the impact of health services. Other factors, such as the distribution of food subsidies, the spread of literacy and education and improved access to clean water and sanitation have played major roles. However, while all these factors are of importance in Sri Lanka's case, the impact of tax-funded modern health services to maintaining the health of much of the poor rural population cannot be denied, although the nature of its role is not simple (see Box 3.2).

In terms of the overall level of provision of health services through public funding, Sri Lankans are not particularly well endowed. In terms of the number of doctors per 1000 population, Sri Lanka does worse than most Asian countries, and worse than many countries in Africa, and as already discussed public spending on health has been modest. Even the existence of food subsidies has not been sufficient to prevent widespread malnutrition, and similarly efforts to provide access to safe water and sanitation have not been particularly successful. Table 3.6 illustrates how in several key respects, Sri Lankans do not benefit from a health promoting physical environment.

Table 3.6: Sri Lanka's health environment compared with selected countries

Country	*Population with access to safe water (%) 1990*	*Population with access to sanitation (%) 1990*	*Babies with low birth weight (%) 1985*	*Prevalence of malnutrition (under 5 years) 1990*
Tanzania	52	77	14	20
Kenya	49	NA	13	NA
Zimbabwe	84	40	15	12
Côte d'Ivoire	69	91	14	12
Bolivia	53	26	15	18
Senegal	44	47	10	22
Sri Lanka	**60**	**50**	**28**	**45**

Source: World Bank (1993) and World Bank (1994).
Note: Infant mortality rates in 1994 were Tanzania 84, Kenya 59, Zimbabwe 54, Côte d'Ivoire 90, Bolivia 71, Senegal 64, and Sri Lanka 16 deaths per 1000 live births (World Bank, 1996).

Box 3.2: Survival, Poverty and Under-Nutrition

A longitudinal survey of pregnant women and their newborns in a region which adequately represented Sri Lanka's poor rural areas was conducted by the Department of the Census and Unicef in 1988, and provides some illuminating insights into the prevailing situation in those areas. The physical environment -- housing, water supply and sanitation -- was poor. The large majority of families lived in houses with mud walls, mud floors, and palm thatched roofs. Slightly more than half had no toilets. More than 40 per cent used unprotected sources of water, and 25 per cent lived in abject poverty with periodic food shortages and lacking even basic consumable items such as rice, sugar and soap. Yet the rate of infant mortality, as revealed by the survey, was 27.5 per thousand births for the sample, a figure not significantly different from the rate reported for the entire region in 1986. In these deprived conditions, the rate of female literacy was 83 per cent, and 24 per cent of the women in the sample had some years of secondary education. Eighty per cent of the births had taken place in medical institutions, 82 per cent of the mothers were immunized for tetanus, and 88 per cent had visited a clinic at least once, although the level of care and services received varied widely. Immunization of infants was quite high for all groups, nearly 90 per cent. Slightly more than two-thirds of the women in the sample had basic knowledge of oral rehydration salts. Therefore, in this poverty-stricken environment, the availability of a basic health infrastructure, together with a literate generation of mothers with several years of formal education, was producing an unusual capacity for survival.*

* (Gunatilleke, 1989) reproduced in (World Bank, 1995).

If public intervention was important, it has not been through prevention in the environment, or simply through the level of public services provided. Based on extensive fieldwork, Caldwell et al. (1989) find that the key factor explaining Sri Lankans' uniquely low mortality rates is the highly efficient use of curative health services. It is not that Sri Lankans suffer less morbidity, but that when they fall ill they make rapid, persistent and effective use of modern curative services. Sri

Lankans do not display high levels of hygienic behavior, but they do display highly unusual illness behaviors.

In virtually all instances, when contemporary Sri Lankans fall ill from a potentially life threatening illness, they are exposed to the effective treatment when there is still time for a cure. Contemporary Sri Lankans rapidly note and act upon even mild symptoms of illness, and they have a high rate of resort to self treatment with home-made preparations, pharmaceuticals or ayurvedic medicines. The high rate of self treatment reflects not a disregard for expert treatment, but the speed of the response and the familiarity of most Sri Lankans with the nature of symptoms. In a sample of over 1,600 illness episodes reported by households, Caldwell et al, (1989) were surprised to find that in all but 10 (i.e., 99.4%) of respondents were able to clearly identify and categorize their symptoms or conditions. This high degree of familiarity with modern providers and their diagnostic terms contrasted dramatically with surveys in other developing countries. Typically within one to two days, if self treatment fails, individuals resort to formal providers, who in most cases are Western providers. Once attending a formal provider, Sri Lankans tend to have high rates of compliance with the course of treatment prescribed (which reflects high literacy as well as familiarity with modern treatment), but impatience for results, which means that they will rapidly change providers if they do not have success. Within Sri Lanka, differentials in mortality are linked more to differences in such behavior than to differences in environment, such as rural-urban location (Caldwell, Gajayanayake, and Peiris, 1989).

The rapid and persistent use of modern health facilities is the key to explaining Sri Lankan's low mortality, despite otherwise unfavorable conditions. It also explains the very high utilization rates of providers, and it partly explains the high occupancy rates and low ALOS seen in MOH hospitals. Sri Lankans hospitalize frequently, partly because both patients and providers will resort to hospitalization sooner and for more milder conditions than elsewhere. Frequent short stays are the result.

Caldwell et al. (1989) concluded that cultural factors, education and political change are the key factors behind the emergence of this behavior pattern in Sri Lanka. However, it is likely also that public intervention was also critical. When public services were first expanded in the 1930s, most Sri Lankans still preferred to do nothing or seek ayurvedic treatment when ill. It was the easy availability and accessibility of modern health facilities which encouraged them to initially utilize modern treatment, and thus begin the process of cultural change which gave rise to contemporary behavior patterns. Health facilities were easily accessible because they were available at no money cost, and since they were relatively widely dispersed and thus physically close. Today Sri Lankans are quite familiar with modern medical practices, reflecting frequent use of modern services over decades. If public services had been initially priced at above zero money price, or if public health services had not been as physically dispersed as they were, then this degree of behavior change would have taken much longer. Public services have had more of an impact than just their direct impact on illnesses treated. They have also through the process of widespread exposure played a key role in changing basic illness culture towards one which allows Sri Lankans to make the most effective use of the treatment options available to them and thus maximizes the impact of modern health services (publicly funded or not) in reducing mortality and ill-health.[1]

[1] One of the major impacts of early public supply was to attack the problem of incomplete and imperfect information on the part of households, which in itself would have been a cause of market failure in a truly privately financed system.

Public sector user fees

Contribution to resource mobilization

User fees made their greatest contribution before 1951, when government health facilities routinely charged means-tested user fees. Even then, user fees from patients accounted for less than 20% of recurrent expenditures, declining during the 1930s and 1940s to less than 3%. Much of this was due to sales of an addictive substance, opium. More vigorous collection of fees and a better system for determining incomes might have raised overall cost recovery, but the difference would not have been appreciable, since few people in Sri Lanka had incomes above the threshold level. The only avenue for increasing user fee collections appreciably would have been to lower the income threshold. However, the threshold itself was set close to that for personal income tax. This option would not have made much sense, since it would have been more costly and less accurate for hospitals to identify income than for the income tax department. If additional revenues were to be raised in a manner which protected the poor, then it would have made more sense to increase the burden of personal income tax by widening the tax base or increasing the marginal rate of taxation.

Once the principle of free health care was established in 1951, user fees were no longer regarded as a mechanism for revenue collection until 1971, when they were re-introduced as a general revenue enhancing measure. The 25 cent charge that was introduced for all OPD visits was substantial in terms of price, as it also reduced utilization by 30%, but it did not contribute appreciably to overall revenue mobilization. Gross revenues collected were minimal.

In recent years, user fees have not been charged on a routine basis, except at SJGH. Mobilization of revenues through patient charges at SJGH has gradually improved since 1984 to reach a level more than 20% of operating expenses, but this has required substantial effort. It is unclear how relevant SJGH is to potential cost recovery elsewhere, as it is the most modern and best equipped hospital in the country, and people's willingness to pay may be less at other facilities. In addition, there is evidence that the price elasticity of demand for some SJGH services is about one, which suggests that future price increases may not result in increased revenues, because of falling utilization.

Equity

There are two recognized ways in which user fees can effect equity. They can reduce utilization by the poor and thus hurt equity, or they might contribute to additional resource availability and thus promote equity by allowing improvement in the services available to the poor (Shaw and Griffin, 1995). Work in the 1980s suggested that demand for health services was largely price inelastic, and thus that the impact of user fees would be minimal (Akin, Griffin, Guilkey, and Popkin, 1986; World Bank, 1987). Subsequent analysis using more refined econometric models has concluded that this is not the case, and that price elasticity of demand is greatest amongst the poor (Gertler and van der Gaag, 1990; World Bank, 1993). There are no published demand models based on Sri

Lankan data which allow an assessment of price elasticity of demand using econometric methods.[1] However, the evidence from the 1971-77 and SJGH experiences strongly indicate that price elasticity of demand for MOH services by Sri Lankans is not low. User fees may have a negative impact on equity, unless effective mechanisms exist to exempt the poor.

Since user fees have not contributed significantly to resource mobilization, it is not possible to directly assess the possibility of reallocation of resources as suggested by Shaw and Griffin (1995). However, it is important to note that in the two limited instances where user fees are currently charged (SJGH and MOH paybeds), user fees are charged for services which cost substantially more than basic MOH services, and where the fees are set considerably below cost. In both cases, the net subsidies received by the patients are greater than that received by the average patient, which indicates that user fees do not improve allocation to the poor.

Allocational efficiency

There are little data to assess the impact on allocational efficiency of user fees. Elsewhere it is argued that graduated systems of user fees, where fees are lowest at the primary care levels and highest at hospitals, can improve equity by shifting patients to more appropriate levels in the referral system (Shaw and Griffin, 1995). In Sri Lanka, ever since the expansion of hospital facilities in the 1940s, overcrowding of hospitals has been common. Sri Lankans frequently bypass the nearest government facility (typically a dispensary or other peripheral unit) and travel to major hospitals.[2] Higher level facilities report bed-occupancy rates approaching or more than 100%, while lower level facilities go deserted. This has prompted recommendations over the years to introduce fees as an incentive for patients to seek treatment at the cheapest and most appropriate level. However, it is not certain that this would improve allocative efficiency. There is evidence to indicate that in Sri Lanka tertiary and secondary level facilities are not necessarily more expensive than lower level facilities (Griffin, Levine, and Kelly Eakin, 1994). If this is the case, it would not necessarily follow that shifting patients to lower levels makes sense.

Quality

Since user fees have generally not been retained by the facility collecting them, they have not contributed to improvement of quality at government health facilities. However, it should be noted that in comparison with many other low-income countries, drug availability at MOH facilities is relatively good, and so the benefits to be gained from linking user fees to improvements in drug supply is unlikely to be that relevant in Sri Lanka's case.

1 The 1992 World Bank sponsored MOH Health Financing Study included a demand analysis, and this concluded that price elasticity was low or negligible (Samarasinghe and Akin, 1995). However, the methodology has not been published in the academic literature, or been subject to peer review. It is thus not possible to assess the reliability of the results, although there is some evidence to indicate that the analysis would not have been able to adequately assess price elasticity of demand of the poor.

2 Samarasinghe and Akin (1995) report that of those seeking outside treatment when ill, only 41% go to the nearest provider, and 59% go to a farther facility.

Impact on health status

There are insufficient data to assess the impact of user fees on health status in Sri Lanka.

Oral contraceptive pills are not distributed free in Sri Lanka, and the percentage of users receiving free supplies at 4% is the lowest reported in Asia (Sanderson and Tan Jee-Peng, 1995). This does not however appear to have prevented a continuing rapid decline in fertility. This may have much to do with the high internal desire of Sri Lankan women to have few children; the total wanted fertility rate was only 1.8 in 1993 (Department of Census and Statistics, 1995).

Out-of-pocket household spending

Contribution to resource mobilization

Direct spending by households has contributed 1 - 2.5% of GDP to the health sector over time, and its relative contribution has increased since the late 1970s. Available information indicates that its contribution continues to increase. It may now account for more than 60% of total NHE.

Equity

The burden of household health spending falls directly on the users. Using Central Bank Consumer Finance Surveys, it is possible to estimate the burden borne by households at different income levels. Figure 3.1 and 3.2 show the changes in relative burden of direct household spending on medical care by household income quintiles in 1979 and 1992, disaggregated by type of care purchased: western, ayurvedic and ceremonial.[1]

In 1963, direct household spending on health as a share of total household spending decreased from the poorest quintiles to the middle quintiles before increasing again at the upper end of the income range. The pattern in 1987 is quite different, with health spending clearly income elastic, and richer households spending proportionately more on health care than poorer households. Absolute levels of spending as a share of total household consumption have changed little, and so the most important change over time has been a reduction in the relative burden borne by poorer households, and an increasingly more progressive distribution of direct expenditures.

Direct household spending has become equitable over time. In 1963 most households spent similar amounts in absolute terms on ayurvedic and ceremonial forms of treatment, which meant that poorer households spent more of their total budget on this item. Spending on western forms of treatment was small and confined only to the upper decile of the income range. Over the next two decades, there was a substantial decline in use of ayurvedic and ceremonial forms of treatment across the income range, while there was an increase in spending on western treatment. However, because poorer households are largely dependent on free MOH services, and since use of private western providers is income elastic, expenditures on western treatment increase significantly with income. This results in a highly progressive distribution of spending.

Allocational efficiency

Household spending has remained predominantly (90%) a source of financing for ambulatory care. Much of this is for self-medication, and the rest is for private clinics and the purchase of drugs in connection with MOH treatment. This is the diametric opposite pattern to MOH spending which has increasingly become focused on the provision of hospital care. The bulk of money flowing into ambulatory care provision, i.e., primary health care, consists of direct expenditures by households.

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[1] The Consumer Finance Surveys report expenditures by household spending levels, and not by income quintiles. Figures 3.1 and 3.2 are based on interpolating from the published expenditure levels for households ranked according to spending quintiles.

If it is assumed that spending is more allocatively efficient than hospital care in terms of promoting good health, then direct household spending is the most allocatively efficient.

While household spending has remained predominantly a source of funding for primary health care, the composition of providers has changed significantly over time. Before the mid-1960s private spending went almost exclusively to traditional and religious forms of treatment. Since these forms of treatment are probably less efficacious than modern western treatment, this pattern of spending was not very efficient in terms of achieving improved health outcomes. However, since the 1950s, there has been a dramatic decline in the use of non-Western forms of treatment by all income groups, and both poor and rich and rural and urban household spend the bulk of their money purchasing western treatments. From this perspective, there has been a significant improvement in the allocative efficiency of private spending.

Quality

Sri Lankans have access to an extensive free public health system of comparatively high technical quality, and yet they choose to spend substantial amounts on private health care. The major reason for this is that private providers are more convenient in terms of time and location, provide more courteous services or more comfortable and cleaner amenities. From this perspective, private expenditures by households imply that they are accessing services which are of better quality as perceived by themselves, i.e., better consumer quality. In this sense out-of-pocket spending contributes to greater consumer quality.

A more difficult issue to assess is whether direct household spending finances care which is of better technical quality. The shift from ayurvedic and other non-scientific forms of care to western care would have led to some improvement. However, it is frequently argued that private providers, motivated by profit, will tend to underprovide the most-cost effective services or will provide inappropriate or ineffective treatment.[1] In the case of Sri Lanka, direct household spending for the most part goes to either self-medication or to qualified private physicians practicing western medicine. Although private hospitals and private traditional providers also are consulted, they account for only a small share of total consultations. Thus, the issue of quality of privately funded services is largely a question of the quality of private general practitioners, who provide the bulk of privately financed ambulatory care. There is evidence to suggest that in comparison with other practitioners in other countries, or even with public primary health care providers in Sri Lanka, Sri Lankan private practitioners provide relatively good primary health care (see Box 3.3).

Sri Lankan private practitioners tend to provide a better standard of medical care then their colleagues in the MOH primary health care system, provide greater continuity of care and do more preventative work (Varnam, 1987). Studies also show that they tend to prescribe high proportions of generic drugs when dispensing (Tomson, et. al, 19??).

[1] This appears to be the main reason behind the emphasis on public provision in World Bank (1993).

Box 3.3: A study of private general practitioners in Sri Lanka

Varnam (1987) conducted a comparative study of patient care by private general practitioners and MOH medical officers in the mid-1980s. The MOH providers consisted of medical officers in the OPD of a base hospital, who are typical of the staff used to provide the bulk of primary care provision by MOH, while the private providers were a sample of 40 private general practitioners (GPs), who provide most privately financed primary care in Sri Lanka. Data were collected using direct observation and self-recording.

The private GPs were older, all had completed the compulsory five years government service, and a quarter had received post-graduate training in primary health care. The MOH medical officers on the other hand tended to have only one years experience post-qualification, and none had any additional training in primary health care provision. The MOH doctors were found to spend an average of 1.5 minutes per patient, while the private practitioners spent an average of 2 minutes per patient. Patients consulting at the OPD were more likely to be presenting with new illness episodes, than at the private clinics. Patients at the private clinics presented with more cases of diarrhea and pregnancy, and were more likely to be seeking immunizations. The private GPs were more likely to write some type of clinical patient record (61% versus 8% in MOH), perform immunizations (5% versus 2%) and conduct tests (13% versus 4%). Patients were much more likely to be referred elsewhere by the MOH doctors (16%) than by the GPs (4%), which may reflect the greater training and experience of the private practitioners.

In general, it could be concluded that private GPs in Sri Lanka, who are responsible for approximately half of all outpatient consultations nationally, provide a better quality of medical care to their patients, are more likely to provide continuity of care, more likely to do preventative work and spend more time with the patient. These are all indicators that the quality of care provided by them is not only commendable, but probably better than that provided by PHC services of the MOH.

The high standards found in private practice are not a recent phenomenon, nor are they purely the result of market action. Most importantly, Sri Lankan private practitioners have virtually all been trained in government medical schools, have all served a minimum of five years or more in government service, and must all compete in a market where relatively good quality public services exist. Much of the high standards maintained by Sri Lankan GPs are the direct consequence of the training they received during their years working for MOH. For example the high rate of generic prescribing is related to the emphasis on rational drug prescribing in MOH facilities. In this sense the high quality of privately funded services is the direct consequence of previous public funding. Another reason that may contribute to high standards is historical. Private general practitioners in Sri Lanka were the first in the world to nationally organize as a professional body. The Independent Medical Practitioners Association (IMPA), which was established in 1929, predates even counterpart organizations in the USA and UK (Aloysius, 1989). While the IMPA was a medico-political organization, it has always had an interest in academic issues, and so there has been a long history of professional efforts to maintain standards and train members, which has continued despite official indifference on the part of MOH to the activities of private doctors.

The importance of these factors cannot be underestimated as variables explaining the high quality of private practitioners in Sri Lanka in comparison with their colleagues in other countries. It should be noted that because of MOH's early adoption of drug formularies and essential drug lists in the 1950s, Sri Lankan private practitioners were accustomed to prescribing generics long before WHO developed its policy on rational drug prescribing. Similarly, the IMPA was instrumental in introducing the use of ORS as a treatment for diarrhea by private practitioners in Sri Lanka in the late 1960s, many years before it was adopted by WHO (De Silva, 1984).

Impact on health status

Before the expansion of MOH services in the 1940s, private payment of traditional providers was an important component of Sri Lanka's health care system. However, this did not lead to a healthy population. It can thus be concluded that until the 1950s or later, direct household spending on health care did not contribute greatly to improved health status. Since the 1960s, Sri Lankan households have switched their household spending to purchase of predominantly western treatment, and this spending now funds the bulk of primary health care services in Sri Lanka. Since in the more recent period, health indicators have continued to improve rapidly, it can be concluded that it is likely that private spending does contribute to improved health status.

Private insurance/employer schemes

Contribution to resource mobilization

The contribution of PHI to resource mobilization is small. In 1994, PHI covered 0.95% of the total population, and reimbursed less than 1% of total national health expenditures. PHI may expand over the next few years., as private hospitals are undergo rapid growth. For most people it is extremely costly to utilize these facilities without insurance. Employers face incentives to expand coverage, as insurance premiums are a tax-exempt form of employee compensation, and trade unions are pushing for coverage. Nonetheless, PHI is likely to be restricted to the formal sector and larger employers.

While PHI may increase the resources flowing into the health sector, it will have negative impacts on overall resource mobilization. PHI in Sri Lanka is administered inefficiently. For every rupee that is collected in premiums, only 63 cents are paid out for actual medical expenses. Competition will not reduce this high level of administrative costs in the near future. It is a feature of unregulated PHI in other countries that providers, in particular physicians, respond to the existence of insurance by raising either the price or the volume of services or both, and thus appropriate to themselves much of the additional resources mobilized through the insurance mechanism (Gertler and Solon, 1995). This report presents evidence that the same phenomenon already occurs in Sri Lanka. The net effect is that less than half of PHI premiums paid actually benefit the beneficiaries in terms of financing additional services, and most of the additional financial resources generated instead go to the costs of administration and towards increasing the profits of providers. More disturbingly, the provision of PHI by employees represents a revenue loss to the government, as premiums are deductible for corporate income tax. The implicit tax subsidy per beneficiary may in some high value schemes be actually greater than the average expenditure per person by the government (in 1993 government recurrent health expenditure per capita was Rs. 325, while the average PHI premium per beneficiary was Rs. 553). Since the unit cost of PHI-financed services is several times more than equivalent MOH services, the implied tax subsidy (or foregone tax revenues) for most insured treatment episodes may be greater than any cost savings achieved by the government in shifting utilization away from MOH facilities.

When all these considerations are taken into account, it is not clear that PHI makes a net contribution to health sector resource mobilization, that it does so in an efficient manner, or that the government reduces its fiscal burden by encouraging private sector utilization through PHI.

Equity

PHI coverage is not equally distributed within the population. It is restricted to a small and relatively affluent section of the workforce who work in the formal sector and who are mostly confined to the district of Colombo. Although the insurers are not organized sufficiently to exercise much control over over-utilization, they have already instituted measures to exclude those in greatest need of medical treatment: the elderly, the chronically sick and those with pre-existing conditions. Thus the most of the benefits of PHI are for a young and relatively healthy section of the population. From the perspective of improving the availability of services to the poorer or sicker sections of the population, PHI makes no contribution.

Nevertheless, a major argument in favor of encouraging PHI is that it encourages a shift from MOH facilities to the private sector by the better-off, and so releases resources for the poorer population (Presidential Task Force on Formulation of a National Health Policy for Shri Lanka, 1993),(Shaw and Griffin, 1995). However, as discussed above, the current tax treatment of PHI premiums is likely to have a net negative impact on the government's fiscal balance and thus reduce general revenue mobilization. Tax revenues foregone by the government through tax-exemptions are greater than any cost-savings achieved by reduced demand at government facilities. Given this, PHI under the current policy framework is probably contributing to greater inequity in access to health services.

Allocational efficiency

90% of PHI expenditures go to private hospitals. PHI will tend to increase financing for hospital based care more than ambulatory provision. In the long-run this PHI would worsen allocational efficiency, since ambulatory private providers have lower unit costs than private hospitals.

Technical efficiency

PHI lowers the price of private provision for beneficiaries and acts to shift utilization from free public providers to fee-charging private providers. This would increase the overall technical efficiency of the health care system if private providers are more technically efficient than public providers. As already noted, MOH facilities appear to be on aggregate very efficient, and it is unlikely that shifting patients from public providers to private providers for inpatient care will increase the technical efficiency of the health care system in Sri Lanka. In fact, available price data indicates that Sri Lankan providers are more costly than public providers.

Quality

There are insufficient data to assess the current impact of PHI on the technical quality of health care services. However, by increasing the choices available to beneficiaries and reduces the financial barriers, it is likely to improve the quality of services as perceived by consumers.

Cost containment

The general experience of PHI in other countries is that it will cause major problems with cost escalation (Feldstein, 1981), (Gertler and Solon, 1995), (Hsiao, 1995). The evidence strongly indicates that significant price escalation has occurred in the Sri Lankan PHI market for physicians' services during 1993-95. There are insufficient data to fully assess this finding, but it would be consistent with the expectation on theoretical grounds that PHI by reducing the price elasticity of demand in a market characterized by strong monopoly power on the part of physician providers will act to increase prices and overall profits accruing to physicians.

ANNEX A: STATISTICAL TABLES

Table A.1: Recent economic indicators

	1991	*1992*	*1993*	*1994*	*1995*
GDP at current market prices (Rs. billion)	372.3	425.3	499.8	579.1	661.9
GNP per capita at current market prices (US$)	517.5	556.2	587.7	651.9	709.4
Labor force (millions)	5.9	6	6.1	6.1	6.1
Unemployment (%)	13.8	13.3	13.8	12.1	12.7
Real output growth (%)					
GDP	4.6	4.3	6.9	5.6	5.5
Agriculture, forestry, and fishing	1.9	-1.6	4.9	3.3	3.3
Mining and quarrying	-10.0	-6.0	11.9	6.0	3.4
Manufacturing	6.8	8.8	10.5	9.1	9.2
Construction	3.1	8.1	6.5	6.0	4.9
Services	6.2	5.3	6.3	5.2	5.1
Implicit GNP deflator (% change)	11.1	10.0	9.5	9.4	8.4
Consumption, Investment, and savings (% of GDP)					
Consumption	87.2	85.0	84.0	84.8	84.5
Gross domestic capital formation	22.9	24.3	25.6	27.0	25.1
Gross domestic savings	12.8	15.0	16.0	15.2	15.5
Gross national savings	15.2	17.9	20.3	19.1	19.7
Foreign savings	7.6	6.3	5.3	7.9	5.4
Government finance (% of GDP)					
Revenue	20.5	20.2	19.7	19.0	20.6
Expenditure & net lending	32.1	27.5	28.1	29.0	28.9
Current expenditure	22.5	21.1	20.5	21.9	22.1
Capital expenditure	6.8	5.9	6.7	5.2	6.2
Budget deficit (before grants)	-11.6	-7.3	-8.4	-10.0	-8.4
External finance (% of GDP)					
Trade balance	-11.1	-10.8	-11.1	-13.3	-10.8
Current account balance	-5.4	-4.5	-3.8	-6.5	-4.2
Capital account balance	7.3	5.5	8.2	8.6	4.1
Foreign direct investments	0.7	1.2	1.8	1.3	0.4
Foreign portfolio investments	0.4	0.3	0.7	0.2	0.0
External debt (% of GDP)	74.1	73.9	75.4	75.3	75.8
Debt-service ratio	18.5	17.1	13.8	13.2	13.7
Exchange rates (US$, year end)	42.6	46.0	49.6	50.0	54.0

Source: State of the Economy 1996 (IPS, Forthcoming)

Table A.2: Share of miscellaneous accident business accounted for by PHI

Company	*Miscellaneous Accident Premiums (Rs. millions)*	*Medical Expenses Premiums (Rs. millions)*	*Share (%)*
SLIC	486	24	5.1
NIC	33	13	40.0
UAL	127	19	15.0
CTC-E	59	16	26.4
CIC	237	48	20.3
Total	**942**	**120**	**12.7**

Source: Hema Wijeratne.

Table A.3: Utilization trends at SJGH, 1985 - 1990

Year	*Outpatients*	*Inpatients*	*Average occupancy rate (%)*	*Total beds commissioned*
1985	6,132	1,560	61.4	544
1986	75,540	17,667	59.6	625
1987	96,413	19,986	63.3	661
1988	108,707	22,181	67.7	661
1989	106,397	23,774	60.8	752
1990	104,549	28,824	62.1	876

Note: Average occupancy rate is calculated on the basis of beds commissioned.

Table A.4: Fiscal incidence of tax payments in Sri Lanka in international comparison

		Percentage of total borne by income quintile (%)				
Country and tax	*Year*	*1st*	*2nd*	*3rd*	*4th*	*5th*
Sri Lanka indirect taxes	1979	13	15	15	20	37
Sri Lanka indirect taxes	1987	13	13	15	21	38
Ireland indirect taxes	1987	10	12	20	25	33
Italy indirect taxes	1987	17	18	19	21	25
Netherlands indirect taxes	1987	8	16	20	23	33
Spain indirect taxes	1980	5	11	16	25	45
United Kingdom indirect taxes	1985	6	13	19	25	37
Denmark total taxes	1981	5	14	21	25	35
Ireland total taxes	1987	6	8	16	25	45
Spain total taxes	1980	3	8	14	22	53
United Kingdom total taxes	1985	3	8	16	26	47

Source: Sri Lanka - authors' estimates using Consumer Finance Survey Reports and Indraratne (1992); other countries - van Doorslaer et al. (1993).

Note: Sri Lanka data are for per capita quintiles ranked according to per capita household expenditures. Other countries data refer to differing definitions of household quintiles. Countries selected were those in van Doorslaer et al (1993), whose income distributions were similar to that of Sri Lanka according to World Bank Development Report 1994, except for United Kingdom which was reported as having a more unequal distribution of income. Distributions for other developing countries are not given because the authors were not familiar with comparable data.

ANNEX B: RESULTS OF THE PRIVATE HEALTH INSURANCE STUDY

As part of this study, IPS entered into an agreement with three insurance companies, to provide analytical feedback in exchange for access to individual insurance claim records. The agreement stipulated that the identities of the insurance companies would be kept confidential. Hence, they are referred to as COM1, COM2 and COM3. The three companies are amongst the five largest health insurance providers, accounting for 98% of the health insurance policies in the country.

Description of data

The IPS data set consists of 1,823 insurance claim records provided by the three insurance companies,[1] and aggregate data regarding insurance costs and revenues from the yearly accounts and statistics of the insurance companies. A random selection of insurance claims file was made at each of the three insurance companies. These files each contained information on single illness episodes and the associated insurance claims. Data were extracted from the files and entered into a dBase computer file. The resulting data set was then cleaned and converted into Stata format for analysis.

Insurance claim records data

The following information was extracted from the insurance claim records.

1. Basic data

(a) Insurance Company
(b) Type of Insurance
(c) Group/Individual
(d) Policy Number
(e) Claim Number

2. Patient's demographic data

(a) Age (years)
(b) Sex
(c) Status (i.e., Employee, Spouse, Child)
(d) Area (Village/Town)
(e) District

3. Details about the illness and treatment

(a) Type of illness/Injury
(b) In patient / Out patient
(c) Type of Treatment (Western, Ayurvedic, other)

4. Details about the treatment center and admission

[1] IPS collected over 2,500 claims records from four companies, but since data entry was not completed at the time of writing, all the results reported pertain to analysis of the 1,823 files from three companies.

(a) Type of the treatment center (government hospital, private Hospital, private dispensary, private doctor's clinic, government ayurvedic hospital, private ayurvedic hospital, other)
(b) Name of the treatment center
(c) Date of admission
(d) Date of discharge
(e) Number of days spend at the treatment center
(f) Doctor's name
(g) Specialist/Non-specialist

5. Details about the cost of treatment

(a) Total amount spent on drugs
(b) Total amount spent on doctors
(c) Total amount spent on medical tests
(d) Nursing charges
(e) Admission charges
(f) Room charges
(g) Travel
(h) Labor and other charges

6. Details about the limits in the associated insurance policy

(a) Total limit
(b) Admission and room
(c) Doctors fees
(d) Tests
(e) Nursing and drugs
(f) Travel
(g) Other

7. Details about the claim

(a) Total amount claimed
(b) Date of claim
(c) Total amount reimbursed by the insurance company
(d) Date of settlement of the claim

The following is an overview of the data by year of claim, company and type of claim (i.e. inpatient or outpatient). The total number of records is 1,823. Most of the records are of claims submitted in 1994. Information on claims submitted in 1993 was available only from one company, and the number of such records was too small (especially for inpatient claims) to carry out a significant statistical analysis on 1993 data alone.

Table B.1: Distribution of insurance claims in IPS sample by year

	Inpatient			*Outpatient*		
Company	*1993*	*1994*	*1995*	*1993*	*1994*	*1995*
COM1	28	118	10	80	473	51
COM2	-	288	45	-	181	40
COM3	-	430	54	-	22	3
Total	28	836	109	80	676	94

Methodology and Analysis

Regression analysis has been used to look at differentials in costs faced by different companies and types of schemes. Some qualitative analysis was also attempted on the basis of the structures of different PHI schemes. In such cases the analysis had to remain qualitative since the structures and variations of the schemes do not suggest a rationale for codification. Conclusions were also drawn by comparing the quantitative results of the insurance data with the quantitative results of other house-hold health expenditure surveys.

PHI companies

Claims faced by insurance companies

The largest percentage of inpatient claims and the smallest percentage of outpatient claims were found with COM3. Since the sampling was random, this distribution of out and inpatient coverage can be expected to represent the global pattern of insurance claims. (Aggregate figures of out and inpatient claims are not available from the companies themselves).

Table B.2: Inpatient and outpatient distribution of claims in sample for 1994

	Distribution of claims			
	Inpatient		*Outpatient*	
Company	*Number*	*Percentage of total*	*Number*	*Percentage of total*
COM1	118	14.1	473	70.0
COM2	288	34.4	181	26.8
COM3	430	51.4	22	3.2
Total	836	100.0	676	100.0

Efficiency of claim processing

The following table sets out the mean number of days taken by individual PHI companies to process claims. The duration of processing is calculated as the time between the first intimation (i.e. notification of claim along with the documentation) by the claimant or insurance agent and the date of writing the reimbursement check to the claimant.[1] There is substantial variation in this measure of administrative efficiency between companies.

Table B.3: Variation in time for processing insurance claims by company

	Mean number of days to process insurance claims		
	COM1	*COM2*	*COM3*
Inpatient claims	11.2	19.2	28.5
Outpatient claims	12.2	11.8	35.3

[1] Collection of this information was suggested by Dr. AK Nandakumar of Harvard University.

Cost of insurance-financed treatment episodes

Table B.4 gives the average cost of different items of service per treatment episode according to the insurance claims received by each company. COM3 outpatient beneficiaries are incurring a very much higher level of costs than outpatient beneficiaries of other insurance companies (three to six times the cost of COM2 and COM1). This difference in cost derives from very high doctors and nursing charges (5 to 10 times the cost of COM2 and COM1).

Table B.4: Mean unit costs faced in rupees for each category of charge by company

	COM1		COM2		COM3	
	Inpatient	*Outpatient*	*Inpatient*	*Outpatient*	*Inpatient*	*Outpatient*
Admission and room	3,241	-	3,803	-	3,075	-
Doctors fee	3,527	227	4,206	367	4,227	2,001
Nursing charges	1,753	5	1,128	13	1,321	488
Drug expenses	2,655	312	3,100	480	3,880	190
Charges for tests	1,057	103	1,295	103	1,361	491
Other fees	382	10	220	72	186	23
Cost of bed per day	625	-	698		705	-
Total cost	12,615	657	13,752	1,035	14,050	3,193
Total claimed	12,706	655	12,745	1,100	14,541	3,238
Total reimbursed	9,420	490	9,268	964	10,644	2,989
Percentage reimbursed	74.1%	74.8%	72.7%	87.6%	73.2%	92.3%

The above results suggest that the COM3 clientele is more affluent, and therefore demand a higher level of outpatient health care. The inpatient costs for COM3 claims are only marginally higher than the costs for claims faced by other companies. The following model was used to estimate the significance and degree of cost difference faced by both inpatient and outpatient claims between COM3 and other insurance companies. (The model will henceforth be referred to as Model 1).

Total cost = male + employer + specialist doctor + western treatment + COM1 + COM2

The following results were obtained from OLS regression analysis.

Table B.5: Results of regression analysis using Model 1

Using outpatient claims			*Using inpatient claims*		
Variable	*Coefficient*	*t-value*	*Variable*	*Coefficient*	*t-value*
COM1	-2051.77	-9.567	COM1	-1269.98	-0.725
COM2	-2418.96	-11.54	COM2	-1287.51	-0.642
male	170.1542	2.196	male	-3187.36	-2.172
employer	-507.464	-4.8	employer	-1018.02	-0.526
specialist	260.3693	3.441	specialist	3475.179	0.935
western	338.2672	1.073	western	5549.999	0.713
constant	2930.582	7.834	constant	7855.137	1.051
R^2 =	0.2		R^2 =	0.01	

The regression results suggest that differences in inpatient costs between COM3 and other companies are not statistically significant. But the difference in outpatient cost is both large (Rs. 2,000 to 2,500) and statistically significant.

The reason for these high claims could be tied up with the manner in which COM3 issues outpatient coverage. COM3 accepts health and outpatient coverage only from those that are willing to invest all their other general insurance business with COM3. This results in targeting very exclusive clients who have both a propensity to spend and claim larger amounts.

Utilization

Distribution by type of service provider

The following table shows a breakdown of the utilization of services by those making insurance claims. over 60% of all the insurance claimants and over 91% of inpatient claimants sought treatment at private hospitals. Over 92% of outpatient cases received treatment in private hospitals, dispensaries or clinics. There is evidently a strong relationship between PHI coverage and the private provision of health care - especially private hospitals.

Table B.8: Utilization by provider type for insured patients

	Percentage of total claims		
Provider type	*Outpatient claims (%)*	*Inpatient claims (%)*	*All claims (%)*
Government hospital	1.0	7.4	4.1
Private hospital	32.7	91.4	60.5
Private dispensary	38.7		20.4
Private doctor	21.1		11.1
Ayurvedic hospital	0.0	0.9	0.4
Ayurvedic doctor	0.5		0.3
Other	1.7		0.9
Pharmacy	4.2		2.2
Foreign hospital	0.0	0.2	0.1
Total	100.0	100.0	100.0

Since government facilities (except for SJGH) don’t charge for health care, visits to such institutions will not be visible through the PHI claims. Also since non-charging government institutions tend to levy non-monetary costs on patients, such as inefficiency in the admission process, lower standards of sanitation and cleanliness, over-crowding and disrespectful treatment of patients, it is to be expected that those with PHI would choose private hospitals, where such non-monetary costs appear to be lower.

Usage of bed-days by inpatients

The following table shows the average duration of stay in hospital, by type of hospital. We notice here that the average length of stay at government hospitals is more than double the length of stay at private hospitals; ayurvedic hospitals have the longest average stays.

Table B.9: Average length of stay for insured admissions by provider type

Provider type	*Mean ALOS*	*N*
Government hospital	9.4	64
Private hospital	4.5	786
Ayurvedic hospital	11.7	8
Foreign hospital	7.5	2
Total sample	**5.0**	**860**

Further analysis is warranted to understand these differences. Differences in case mix and ceilings on insurance coverage may be important factors in explaining this observation. For instance, the high cost of private hospital care may result in the insurance ceiling being reached in a fewer number of days and creating incentives for short convalescence in hospital. Further, the nature of patients treated at Ayurvedic hospitals (predominantly those suffering from chronic illnesses) and the nature of the Ayurvedic treatment may result in long periods of convalescence at such hospitals

Health Care Providers

As observed above, the health care providers used by insured patients are predominantly in the private sector. Tabulations were done to ascertain the distribution and variation of usage *among* the leading private providers of health care

Inpatient market share of private hospitals

The following table lists the market share of the leading individual private hospitals with respect to the number of admissions and bed days provided to those covered by PHI. More than 50% of the hospital visits and patient bed days are seen to be accounted for by the three market leaders in private hospital provision.

Table B.10: Inpatient market share of the private hospitals most used by PHI beneficiaries in 1994

Hospital	*Number of cases*	*Percentage market share by admissions (%)*	*Average length of stay*	*Number of bed days*	*Percentage of market share by bed days (%)*
Nawaloka	221	28.5	5.5	1,217	31.5
Asiri	114	14.7	4.2	478	12.4
Durdans	92	11.9	4.7	432	11.2
Delmon	36	4.6	3.3	118	3.1
St.Michaels	35	4.5	4.4	155	4.0
SJGH	34	4.4	6.7	227	5.9
Ratnam	25	3.2	4.0	99	2.6
Maccarthy	23	3.0	4.7	109	2.8
Central Hospitals	21	2.7	4.0	84	2.2
Sulaiman	19	2.4	3.6	69	1.8
Joseph Fraser	14	1.8	5.0	70	1.8
Others	142	18.3	5.7	802	20.7
Total	**776**	**100.0**	**5.0**	**3,861**	**100.0**

It is also seen that 80% of the inpatient services to PHI beneficiaries are provided by the ten market leaders in the provision of private hospital care. Thus the resources raised through PHI seems to have very limited disbursement among the providers of health care, with a few private providers enjoying a disproportianate share of the PHI payments.

Out patient and total market share of the private hospitals

The following table compares the private hospitals delineated above, in terms of their provision of, the less resource intensive, outpatient services to those covered by PHI. It is seen that the two market leaders inpatient provision, to PHI beneficiaries, remain the market leaders in outpatient provision as well, though in inverted order.

Table B.11: Outpatient and total market shares of the private hospitals most used by PHI beneficiaries in 1994

Hospital	*Number of cases*	*Percentage market share of outpatients (%)*	*Number of total cases*	*Percentage of market share by total cases (%)*
Nawaloka	80	15.2	301	23.1
Asiri	53	10.1	167	12.8
Durdans	11	2.1	103	7.9
Delmon	9	1.7	45	3.5
St.Michaels	13	2.5	48	3.7
SJGH	2	0.4	36	2.8
Ratnam	4	0.8	29	2.2
Maccarthy	9	1.7	32	2.5
Central Hospitals	13	2.5	34	2.6
Sulaiman	5	0.9	24	1.8
Joseph Fraser	10	1.9	24	1.8
Others	317	60.0	459	34.8
Total	526	100.0	1,302	100.0

In the case of outpatient claims the three market leaders in private health care provision capture only 27% of the market share of PHI beneficiaries, as opposed to 54% of the market share in the case of inpatients (i.e. about half the inpatient market share). Further it is seen that the ten leading providers of inpatient care capture less than 40% of the outpatient market of PHI beneficiaries. It may be concluded that the lesser resources raised by PHI for outpatient care has much wider disbursement among private providers of health care than the greater resources raised by PHI for inpatient health care.

Beneficiaries

Age, Sex Distribution

The profile of the Beneficiaries of PHI was analyzed in terms of sex and age categories. The following profile covers only the inpatient cases since demographic data for outpatient cases are mostly unavailable.

Table B.6: Profile of beneficiaries by sex and age categories for insured inpatients

Age group (years)	*Female*	*Male*	*Total*	*Age group (years)*	*Female*	*Male*	*Total*
00-01	10	11	21	36-40	51	50	101
	2.6	2.8	2.7		13.4	12.6	13.0
01-05	19	34	53	41-45	28	48	76
	4.9	8.6	6.8		7.4	12.1	9.8
06-10	15	23	38	46-50	29	32	61
	3.9	5.8	4.9		7.6	8.1	7.8
11-15	7	7	14	51-55	17	31	48
	1.8	1.8	1.8		4.5	7.8	6.2
16-20	16	16	32	56-60	6	24	30
	4.2	4.0	4.1		1.6	6.0	3.9
21-25	29	22	51	61-65	2	11	13
	7.6	5.5	6.6		0.5	2.8	1.7
26-30	76	40	116	66-70	0	4	4
	19.9	10.1	14.9		0	1.0	0.5
31-35	76	44	120	**Total**	**381**	**397**	**778**
	19.9	11.1	15.4		**100**	**100**	**100**

Note: Each cell contains two numbers. The upper one is the actual number in the sample, and the number below is the percentage of the total for that gender.

Of the 778 claims for which age was available almost 50% of the cases were between 20-40 years of age. The incidence of claims is highest between the ages of 25-35 with 30% of the claims coming from this group. The result is interestingly counter-intuitive. More claims should be expected from the lowest and highest age categories since probability of illness is greater amongst those age categories than amongst the middle age categories.

However the above 20 age group represents the individuals that are most likely to be holding jobs that give group insurance coverage. Furthemore, health insurance schemes tend to exclude the older age groups from normal coverage. Therefore the intermediate age categories represent the individuals most likely to be covered by PHI. Thus an explanation of the high incidence of claims amongst the intermediate age categories is that family members of group schemes do not receive the same benefits as the employed individuals.

Though there is greater need for PHI cover for the lowest and highest age categories, it is the lowest health risk group with the lesser need that benefits the most from PHI coverage.

Mean cost for patient visits shows a trend similar to the incidence of claims. (The high mean cost for 65-70 year olds is an outlier that can be disregarded since it samples only four visits by males and no visits by females). This suggest that the age group which is least burdensome on the health cares system in terms of incidence and cost of health problems is doubly favored by the PHI industry. Not only are they the most frequent beneficiaries but their mean cost per treatment visit is also the highest. Evidently, most of the resources mobilized through PHI are allocated to the age groups that are least in need of them.

Geographical Distribution

The profile of Beneficiaries was also analyzed in terms of geographical distribution. The following profile compares the inpatient and outpatient share of PHI beneficiaries vs the population share of each district

Table B.7: Geographical distribution of household of PHI claimants

	Percentage distribution of PHI claimants			Population share
District	Outpatients	Inpatients	Total	in 1994 (%)
Colombo	92.1	88.8	90.5	11.5
Gampaha	0.9	2.2	1.5	8.8
Kalutara	1.2	2.9	2.0	5.4
Kandy	1.9	2.8	2.3	7.2
Matale		0.2	0.1	2.4
Nuwara Eliya	0.1	0.2	0.2	3.1
Galle	0.4	0.2	0.3	5.5
Matara		0.4	0.2	4.5
Hambantota				3.0
Jaffna				5.0
Mannar				0.8
Vavuniya				0.7
Mullaitivu				0.5
Batticaloa				2.5
Ampara				2.9
Trincomalee				1.8
Kurunegala	0.7	0.6	0.6	8.3
Puttalam				3.5
Anuradhapura				4.2
Polonnaruwa				1.9
Badulla	0.5	0.6	0.6	4.1
Moneragala				2.1
Ratnapura	1.2	1.3	1.3	5.4
Kegalle	0.7		0.4	4.3

Source: See text. Share of national population is provisional estimate for 1994 (Statistics Department, 1995).

The analysis shows that over 90% of the claimants were from Colombo district. Thus the current benefits of PHI are strongly in favor of those residing in the most developed geographic locality of the country.

Conclusion

It is seen that that there are large variations among PHI providers in terms of
- Costs incurred for outpatient claims and
- Efficiency (i.e. speed) in the processing of claims.

As a mechanism for resource mobilization PHI is seen to serve predominantly:
- Those in formal sector employment
- The patients that are least needy in terms of age
- Patients that are most advantaged in terms of geographical locality
- The private providers of health care and
- A handful of private hospitals

In a situation where the provision of health care continues to be primarily dependent on the public sector, and equity and access are important considerations, it is difficult to envision the growth of PHI, in its current form, being the answer to the needs of resource mobilization.

ANNEX C: RESULTS OF THE IPS/HARVARD PUBLIC OPINION POLL ON USER FEES

The major consideration that is likely to influence introduction of any policy of charging user fees for routine services provided by the Ministry of Health is political. Such a policy may be potentially unpopular with the electorate, and thus carry significant political costs for policy makers. However, there has never been any evaluation of actual public opinion. As part of this study, IPS contracted with Research International (Pvt.) Ltd.[1] to insert three sets of questions into their regular national opinion poll survey to inquire about public opinion on this matter.

Description of survey methodology

The survey was carried on a national basis (excluding Northern Province) during the month of August 1995.[2] Eastern Province was only partially sampled, as the security situation did not permit data collection from Batticaloa district; however, a sample of 120 subjects was taken in to the sample from some Sinhala speaking areas in the Ampara and Trincomalee districts. Sampling consisted of a three stage combined, stratified-quota sample of 2,310 Sri Lankans over 18 years of age in 230 sampling points throughout Sri Lanka. Opinion and exit poll surveys often use quota sampling methods to select sample subjects. The sample size was selected to obtain estimates at the district level with reasonable margins of error. In comparison with random sampling, quota sampling has higher error rates, but a higher overall response rate.

The sampling method consisted of three stages, with proportionate stratified sampling used in the first two, and quota sampling in the third. In the first stage, all districts that were covered became the strata, and hence a sample was selected from each one of these districts proportionate to the population size. In the third and final stage, ten households were selected from each town or DS division to satisfy the following quotas, which were designed to control for ethnic group, gender, age and income group. Ethnic group quotas were selected for each district, while the other quotas were selected to represent the country's population as a whole as follows:

Gender:	Male 50%	Female 50%
Age:	18 - 29 years	40%
	30 - 49 years	40%
	Above 49 years	10%
Income Groups:	Lower income class	60%
	Middle income class	30%
	Upper income class	10%

1 Research International is a private research firm, which has pioneered the conducting of national opinion polls in Sri Lanka in collaboration with Mitofsky International of New York.

2 It was not possible to conduct field work in most areas of the Northern Province owing to the disturbed conditions prevailing as a result of the insurgency being waged by the LTTE. Large areas of Northern Province at the time were under the *de facto* rule of the LTTE, an environment which is not conducive to the holding of public opinion polls of any nature. The LTTE as an organization does not tolerate freedom of expression and permit the exercise of basic democratic and political rights by the people under its control (US Department of State, 1996).

Data collection was through personal interviews using a questionnaire, prepared in Sinhala, Tamil and English. Each field investigator was assigned a DS division or a town/village and asked to collect data from a cluster of households that would include all income classes. The field investigators were all A-Level qualified youths well experienced in conducting opinion polls. They were trained to follow the questionnaire in training sessions held in several locations. Supervisors were appointed to very the quality of work of the field investigators.

The questionnaire used was based on the one regularly used by Research International in its previous national opinion polls, which were designed to identify people's opinions about the general economic situation in the country, various political and development issues. Three sets of questions on the issue of user charges were included in the questionnaire. The questions and allowed responses were as follows:

Q21. When your family is ill, do you generally use any of the following? (More than one reply is allowed)

(1) Government Health Facilities
(2) Private Clinics
(3) Private Hospitals
(4) Pharmacies

Q23. Are you satisfied with the services available at the following? (Responses allowed: Very satisfied, Satisfied, Not satisfied and No experience.)

(1) Government Health Facilities
(2) Private Clinics
(3) Private Hospitals
(4) Pharmacies

Q24. If the Ministry of Health was to introduce charges for the following in order to improve the quality and availability, would you approve? (Responses allowed: Yes, No.)

(1) Charging for medicines
(2) Charging for doctors consultations
(3) Charging for inpatient treatment

Data analysis

Data analysis was carried out jointly at IPS and Harvard University using Stata. The percentages shown in the tables are rounded to the nearest whole percentage point. They may on occasion not sum to 100%, because of rounding and missing or incorrect responses. In general, the number of non-responses was low for all questions, and less than 2%.

Results

Use of services

Respondents were allowed to name up to two different types of provider that their families generally used when ill. Three quarters of the respondents admit to using MOH facilities generally. Use of private facilities is much less, although many of those using MOH facilities also use at least one other private provider (Table C.1). The use of pharmacies is probably underestimated because only two responses were allowed, and most pharmacy users use them as supplements to taking care from both government and private facilities.

Table C.1: Health providers generally used by respondents

Health service provider	*Percentage generally using (%)*	*N*
Government health facilities	76.5	2,312
Private clinics	28.8	2,312
Private hospitals	13.3	2,312
Pharmacies	2.9	2,312

Notes: Respondents were allowed to name up to two types of provider. Percentages reported are for of all respondents, including those did not answer question.

Use of government facilities and private clinics and hospitals shows clear socioeconomic gradients. Poorer and less-educated Sri Lankans rely on government facilities more, and better-educated and richer Sri Lankans rely more on private clinics and hospitals (Figure C.1 and C.2).

Satisfaction with services

Sri Lankans are generally satisfied with the services available from most providers. Satisfaction with MOH facilities is higher than for other facilities amongst those who had actual experience of use. User dissatisfaction was greatest for those who used private providers (Table C.2).

Table C.2: Satisfaction with services available at different providers

	Percentages of respondents				
Health service provider	*Very satisfied*	*Satisfied*	*Not satisfied*	*No experience*	*N*
Government health facilities	18	54	27	1	2,273
Private clinics	11	54	26	9	2,223
Private hospitals	12	44	26	17	2,210
Pharmacies	9	47	30	15	2,071

Notes: Total number of people interviewed was 2,312.

Dissatisfaction with MOH facilities increases from 16% amongst those with no education to 41% amongst those who have an incomplete university education. The richest Sri Lankans (38%) have higher levels of dissatisfaction than the very poor (21%), but satisfaction with private facilities displays the opposite pattern, with poorer and less educated people being more dissatisfied than average. When only those who use private clinics and hospitals are examined, there are no major differences by education and income level. This suggests that dissatisfaction with private facilities amongst poorer Sri Lankans may be related to problems of access and cost.

Attitudes to user fees

There was high public disapproval for any policy of charging user fees at government health facilities (Table C.3). Public approval for user fees ranged from 12 to 20% depending on what the fees were to be charged for. Public disapproval of fees was greatest in the case of inpatient treatment, and least for medicines. The association between approval of user fees and the background characteristics of the respondents was also examined (Tables C.3 to C.10).

Table C.3: Public approval for user fees at government health facilities

	Percentage of respondents (%)		
User fee options	*Approve*	*Disapprove*	*N*
Fees for medicine	19.9	79.8	2,250
Fees for doctor's consultation	15.5	84.4	2,247
Fees for inpatient treatment	11.7	87.4	2,244

Notes: Survey conducted in August 1996. Percentages may not sum to 100% because of rounding, , and incorrect or miscoded responses. Total number of people interviewed was 2,312.

Table C.4: Support for user fees by income group

	Percentage (%) of respondents approving user fees for			
Income group	*Medicines*	*Consultations*	*Inpatient care*	*N*
Very poor	16	13	9	629
Poor	14	12	7	356
Average	22	17	13	989
Rich	29	20	19	280

Note: Income refers to total monthly income of family. 'Very poor': < Rs. 700; 'Poor': Rs. 701-1,500; 'Average': Rs. 1.501-5,000; 'Rich': > Rs. 5,000.

Table C.5: Support for user fees by age group

	Percentage (%) of respondents approving user fees for			
Age group	*Medicines*	*Consultations*	*Inpatient care*	*N*
Under 21 years	11	15	11	183
21 - 30 years	27	14	9	772
31 - 40 years	22	15	11	536
41 - 50 years	21	19	14	401
51 - 60 years	12	16	16	285
Over 60 years	20	18	11	135

Note: Total number of people interviewed was 2,312.

Table C.6: Support for user fees by level of education

	Percentage (%) of respondents approving user fees for			
Highest level of education	*Medicines*	*Consultations*	*Inpatient care*	*N*
None	11	14	8	69
Grade 5	16	14	9	327
Grade 9	22	16	14	532
O-Level	20	16	12	818
A-Level	21	15	11	471
Entered university	6	17	6	19
Graduate	37	23	13	42

Note: Total number of people interviewed was 2,312.

Table C.7: Support for user fees by predominant type of provider generally used for care

	Percentage (%) of respondents approving user fees for			
Provider generally used	*Medicines*	*Consultations*	*Inpatient care*	*N*
MOH facilities	17	13	9	1,769
Private clinics	26	21	15	543
Private hospitals	25	21	21	308
Pharmacies	33	23	15	66

Note: Total number of people interviewed was 2,312.

Support for user fees at MOH facilities increases with income and education, and is greater amongst those who use other private facilities. Since use of private facilities is correlated with increasing income and education, logistic regression analysis was carried out in order to determine whether it was income and education or lack of use of government facilities which determined support for user fees. The analysis showed that each of these factors is significant and independent determinants by themselves, indicating that decreased reliance on government facilities may in itself lead to increased support for user fees at government facilities. However, it is important to note that even amongst those who did not generally use government facilities three quarters disapproved of user fees at government facilities (70%, 75% and 79% disapproval of fees for medicines, doctors' consultations and inpatient care respectively).

Table C.8: Support for user fees by ethnicity

	Percentage (%) of respondents approving user fees for			
	Medicines	*Consultations*	*Inpatient care*	*N*
Sinhala	18	14	10	1,973
Sri Lankan Tamil	30	24	18	129
Indian Tamil	72	76	52	32
Moor	31	17	17	149

Note: Total number of people interviewed was 2,312.

Table C.9: Support for user fees by religion

	Percentage (%) of respondents approving user fees for			
Religion	*Medicines*	*Consultations*	*Inpatient care*	*N*
Buddhist	17	14	10	1,810
Hindu	36	35	26	127
Muslim	30	16	17	156
Christian	28	20	16	190

Note: Total number of people interviewed was 2,312.

There are differences in the level of support for user fees by ethnic group and religion. In general, Sinhala and Buddhist Sri Lankans disapprove of user fees the most. Logistic regression analysis reveals that the differences between Sinhala and non-Sinhala and Buddhist and non-Buddhist Sri Lankans are statistically significant. In general, if a Sri Lankan is Sinhalese or Buddhist, they are only approximately 60% as likely to support user fees as those who are not.[1]

[1] Logistic regression models are not influenced by disproportionate sampling procedures, and so these results are valid, without any need to weight the data because of quota sampling (Maddala, 1988).

Differences between the other ethnic and religious groups are not great, except for Indian Tamils. Indian Tamils are the only group that can be identified in the survey sample, in which a majority approve of user fees at government facilities. Because of the quota sampling procedure used, only a small number of Indian Tamils were interviewed, and only in the districts of Colombo (N=10) and Nuwara Eliya (N=22). When these two sub-samples are examined, high approval levels for user fees are found only amongst the Indian Tamils living in Nuwara Eliya (Table C.10). Chi-squared tests indicate that the high support for user fees amongst Indian Tamils is not only significantly different from other respondents in that district ($p<0.001$), but significantly different from those Indian Tamils interviewed in Colombo ($p<0.05$). This large difference between Indian Tamils living in Colombo and those living in Nuwara Eliya is not surprising. Respondents in Nuwara Eliya almost certainly belonged to the tea plantation workforce, while Indian Tamils in Colombo would have been amongst those who have left the plantations and have integrated into the indigenous population. Contrasted with the high support for user fees, the Indian Tamils in Nuwara Eliya, somewhat surprisingly, also express a high level of satisfaction with government facilities - much higher than in any other group (21 out of 22 were 'very satisfied' compared with 17% of the other respondents). This latter difference was highly significant in a chi-squared test ($p<0.001$).[1]

Table C.10: Support for user fees amongst Indian Tamils in comparison

	Percentage (%) approving user fees for			
Group of respondents	*Medicines*	*Consultations*	*Inpatient care*	*N*
Indian Tamils in Nuwara Eliya	85	90	65	22
Other Nuwara Eliya residents	25	21	16	57
Indian Tamils in Colombo	20	20	22	10
All non-Indian Tamils	19	15	11	2,290

Note: Total number of people interviewed was 2,312. The sample sizes, N, given in the last column refer to the total number in each group interviewed. However, the percentages reported are the percentages giving a particular response out of those who answered, excluding non-responses.

Discussion

There are few published reports in the international literature about public opinion about health services and health financing policy in developing countries. So it is difficult to compare these findings with countries other than those in the OECD. However, it must be noted that in two respects relevant to the making of social policy, Sri Lanka resembles OECD countries more than it does most developing countries: (i) it has been governed on the basis of multiparty universal franchise since 1931 - longer than most OECD members, and (ii) there has been a public commitment by the state to universal health care provision for a similar period of time.

Satisfaction

The survey indicates high public satisfaction with the publicly financed health care system. This is consistent with another poll in March 1995 by Research International which asked about satisfaction with the provision of public services. This found that satisfaction with doctors and other health services ranked below that with the police and electricity, but above levels of satisfaction with roads, credit facilities, agricultural subsidies, garbage collection and other

1 The non-technical reader should note that the levels of statistical significance reported take into account the small size of the samples.

municipal services (Research International, 1995). This is in contrast to the perception in many developing countries of general dissatisfaction with publicly-financed and publicly-provided health services (Frenk, 1995), (Shaw and Griffin, 1995).

The 72% of Sri Lankans admitting satisfaction with the public system is comparable with the high levels of satisfaction reported from the West European welfare states, and is significantly higher than that reported from the USA and Mexico (Blendon, Donelan, Jovell, Pellise, and Lombardia, 1991) (Pescosolido, Boyer, and Tsui, 1985) (Hsiao, 1992; Frenk, 1995). Pescosolido et al. (1985) suggest that differences in levels of public evaluation are related to the length of time that states have taken responsibility for providing services through the public sector. This might explain the higher levels of public satisfaction in Sri Lanka in comparison with, for example, USA and Spain. The greater dissatisfaction with government health services amongst those of higher education and income is also comparable with patterns of public opinion reported from West European countries. In the case of European countries this social gradient in attitudes is thought to be related to increasing expectations of quality with higher income and education (Abel and van der Zee, 1995),(Pescosolido, Boyer, and Tsui, 1985).

Opposition to user fees

There was high disapproval across all social classes of the policy of introducing user fees. Variation on this issue is similar to OECD societies. In those countries, public support for increased private financing is greater amongst those of higher education and income level (Harvey, 1993), and in Germany and the Netherlands is also greater amongst those who rely on private financing for their own care (Abel and van der Zee, 1995). That finding parallels the increased support for user fees amongst Sri Lankans who do not use publicly financed facilities. The results confirm the belief of politicians and most observers in Sri Lanka that user fees would be highly unpopular with the electorate. The high support for user fees found only amongst Estate Tamils is unlikely to be a countervailing factor, as this section of the electorate has tended to vote as a single vote bloc on the basis of other issues. Median voters would be expected to have the greatest weight in a two party competitive system such as Sri Lanka. Since approval for user fees is minimal and skewed at the upper end of the income and educational range, neither of the two main political parties is likely to gain votes by proposing user fees as a policy.

A survey by Research International in June 1995 reported high levels of disapproval of privatization of state institutions amongst Sri Lankan voters (Research International, 1995). However, the actual level was slightly lower than for health service user fees (78% disapproval amongst those who answered compared with 80 - 87% disapproval for the different user fee options). In contrast to health service user fees, opposition to privatization of state institutions appeared to increase with education and higher socioeconomic status. The higher level of approval for privatization than for “privatization” of health services resembles poll findings in the UK in the 1980s, where a smaller majority disapproved of privatization than of changing the public nature of health service financing. British public opinion also resembles Sri Lankan public opinion in one other manner. While most Britons opposed government policies that would directly encourage growth of private medicine or expand pay beds in government hospitals, the large majority (88%) supported the availability of private medical treatment in private hospitals (Blendon and Donelan, 1989). This parallels the apparent contradiction amongst Sri Lankans, the majority of whom appear to simultaneously pay for private medical care for themselves, but oppose a policy of paying for public services. Blendon et al. (1989) concluded, from the British data, that the British public view health differently from other areas of the economy, and that even where there is public support for economic reform through privatization, this support does not imply a similar public mandate for significant market reforms in the publicly-financed health system. Nevertheless, while the public can oppose direct state support of private financing, it does not oppose greater private sector expansion. This does not represent a contradiction, if the Sri Lankan and British public believe that privately-financed and publicly-financed health services meet different social objectives.

British polling experience illustrates one other cautionary feature about the use of such poll findings. Whilst UK opinion polls showed majority disapproval of privatization, the British government was able to implement the most radical program of public sector privatization carried out in a West European country, and still retain electoral support. However, more limited market reforms of the publicly-financed health system not only were unpopular with the electorate, but contributed to significant losses in electoral support by the government. The Sri Lankan findings suggest that the Sri Lankan public might also treat health services differently to state enterprises, and thus react differently to the introduction of user fees than they might to the privatization of state institutions.

Inpatient versus primary care

When asked about what user fees should be charged for, opposition to user fees was greater for inpatient care than for doctors' consultations which was in turn greater than for medicines. Approval of user fees for inpatient care is only half that for medicines, and this is consistent across educational, income and cultural groups. Sri Lankan public attitudes run strikingly counter to the conventional wisdom of international health economists, most of whom believe that there is a stronger rationale for charging user fees for individual hospitalization than for outpatient medical consultations (Griffin, 1992; Shaw and Griffin, 1995). It would be easy to label the Sri Lankan public's views as irrational, but this might be unwise. First, it is clear that Sri Lankan public opinion is consistent with the actual pattern of resource mobilization in what is the most effective health care system in a low-income developing country, where inpatient care is almost exclusively financed from public sources, while primary care is predominantly financed from private sources (see Tables C.1 to C.10). Second, there are valid arguments, rooted in welfare economics and related to the lack of properly functioning insurance markets and the importance of social goals other than health maximization, which would place greater priority on the public financing of inpatient care than the public financing of most types of primary care (Hammer, 1993; Hammer and Berman, 1995).

As noted in this study, the Sri Lankan health ministry has historically allocated relatively high proportions of its funds to hospital care - higher than in other Asian countries. Although it is not known whether public attitudes in other Asian countries differ from those in Sri Lanka, these findings do suggest that the budgetary allocations of the health ministry may be concordant with social opinion at least in Sri Lanka. Studies of public opinion in other Asian and developing countries would be useful to determine whether Sri Lankan public opinion with regard to private financing of hospital care is also distinct. Nevertheless, outside the developing country context, Sri Lankan public opinion is consistent with social values in the OECD countries, where public protection of individuals from financially catastrophic hospital expenditures is as important a health system goal as efficiency and equity (Hurst, 1991).

Social values

Public opinion reflects not only the analysis of individuals when faced with a policy issue, but also underlying social and cultural beliefs. As this study has noted, the very early development of publicly financed health services in Sri Lanka was linked to Buddhist attitudes towards the role of the state and the desirability of certain social objectives. The finding of greater opposition to user fees amongst Buddhists than amongst other religious groups, even when controlling for income and education, confirms that contemporary Sri Lankan attitudes towards user fees continue to be shaped by this Buddhist value system.

While approval of user fees is greater amongst non-Buddhists, the difference is not substantial. This is not surprising, as there has always been a process of the different religious groups in Sri Lanka absorbing and exchanging social values. However, the difference between the Estate Tamils and other Sri Lankans, including Tamils, is great. A partial explanation for this might be the relatively short time that the Estate Tamils have lived on the island, and their segregation from the surrounding population. A more significant explanation might lie in the importance of a social principle accepted in continental European democracies - namely that of "solidarity". Social policy with regards to health policy in these countries is based on the premise that everyone has an obligation to support the access to health care of those who would otherwise be least able to (Kirkman-Liff, 1991), (Abel and van der Zee, 1995). An important objective, from the time of Bismarck's social insurance reforms, has been to promote social cohesion in class-divided industrialized societies through improved social welfare. Evidence for the existence of solidarity values in Sri Lanka is provided for by the fact that the majority of even those who did not use public facilities were opposed to user fees. The Estate Tamils are unusual because until the mid-1980s they were disenfranchized and not considered to be part of the national population. They did not enjoy the access to publicly-financed health services that was considered the right of all Sri Lankan citizens. The apparent high support for user fees amongst this group might therefore reflect the lack of social solidarity values in this group, engendered by their very exclusion historically from general-revenue funded health services and other aspects of citizenship, as well as the poor quality of plantation services that they have had access to.

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